

**APPENDIX A**  
**COMMENTS RECEIVED ON THE ENVIRONMENTAL REVIEW**





## **A COMMENTS RECEIVED ON THE ENVIRONMENTAL REVIEW**

### **A.1 A.1 Comments Received During Scoping**

The scoping process began on October 28, 2010, with the publication of the U.S. Nuclear Regulatory Commission's (NRC) notice of intent to conduct scoping in the *Federal Register* (75 FR 66399). As part of the scoping process, NRC held two public meetings at Camp Perry Lodging and Conference Center, Port Clinton, OH, on November 4, 2010. Approximately 40 members of the public attended the meetings. After the NRC staff presented prepared statements pertaining to the license renewal and the scoping process, the meetings were opened to the for public for their comments. Attendees provided oral statements that were recorded and transcribed by a certified court reporter. Transcripts of the entire meeting are attached at the end of this appendix. In addition to the comments received during the public meetings, comments were received through the mail and e-mail.

Each commenter was given a unique identifier so that every comment could be traced back to its author. Table A-1 identifies the individuals who provided comments applicable to the environmental review and the commenter ID associated with each person's set of comments. The individuals are listed in the order in which they spoke at the public meeting, then at the people's hearing, then at the Sierra Club meeting, and in random order for the comments received by letter or e-mail. The submitter of the two videos provided the NRC with a transcribed version of one of their meetings. In order to respond to comments, the other meeting was transcribed by the Environmental Project Manager. The video transcribed by the Project Manger remains the submitted comments. To maintain consistency with the scoping summary report, the unique identifier used in that report for each set of comments is retained in this appendix.

Specific comments were categorized and consolidated by topic. Comments with similar specific objectives were combined to capture the common essential issues raised by participants. Comments fall into one of the following general groups:

- Specific comments that address environmental issues within the purview of the NRC environmental regulations related to license renewal. These comments address the Category 1 (generic) or Category 2 (site-specific) issues identified in NUREG-1437, *Generic Environmental Impact Statement for License Renewal of Nuclear Plants* (GEIS), or issues not addressed in the GEIS. The comments also address alternatives to license renewal and related Federal actions. There are also comments that do not identify new information for the NRC to analyze as part of its environmental review.
- There are comments that address issues that do not to fall within or are specifically excluded from the purview of NRC environmental regulations related to license renewal. These comments typically address issues such as the need for power, emergency preparedness, security, current operational safety issues, and safety issues related to operation during the renewal period.

**Table A-1. Commenters on the Scope of the Environmental Review**

*Each commenter is identified along with their affiliation and how their comment was submitted.*

Commenter	Affiliation (If Stated)	ID	Comment Source	ADAMS Accession Number
Mark Stahl	President of the Ottawa County Commissioners	1	Afternoon scoping meeting	ML110140231
			Evening scoping meeting	ML110140232
Jere Witt	County Administrator Ottawa County	2	Afternoon scoping meeting	ML110140231
			Evening scoping meeting	ML110140232
Fred Petersen	Director of the Emergency Management Agency Ottawa County	3	Afternoon scoping meeting	ML110140231
Chris Galvin	Director, United Way Ottawa County	4	Afternoon scoping meeting	ML110140231
			Meeting notes	ML110680510
Jackie VanTress	Office and Professional Employees International Union (OPEIU) Local 19	5	Afternoon scoping meeting	ML110140231
Kimberly Kaufman	Executive Director, Black Swamp Bird Observatory	6	Afternoon scoping meeting	ML110140231
Steve Inchak	Representative Congressman Kucinich	7	Afternoon scoping meeting	ML110140231
Beth Leggett	Director, American Red Cross Ottawa County	8	Afternoon scoping meeting	ML110140231
Brad Goetz	International Brotherhood of Electrical Workers Local 1413	9	Afternoon scoping meeting	ML110140231
Ann Heckerd	Food Coordinator, St. Vincent DePaul Food Pantry	10	Afternoon scoping meeting	ML110140231
Brian Boles	Plant Manager, Davis-Besse	11	Afternoon scoping meeting	ML110140231
			Evening scoping meeting	ML110140232
Larry Tscherne	International Brotherhood of Electrical Workers	12	Afternoon scoping meeting	ML110140231
Mike Drusbacky	Deputy Director, Ottawa County	13	Evening scoping meeting	ML110140232
Joseph DeMare	Ohio Green Party	14	Evening scoping meeting	ML110140232
			People's hearing	ML11348A017
			Meeting notes	ML110680517

Commenter	Affiliation (If Stated)	ID	Comment Source	ADAMS Accession Number
Jane Ridenour	President, OPEIU Local 19	15	Evening scoping meeting	ML110140232
			Meeting notes	ML110680512
Patricia Marida	Chair, Nuclear Issues Committee Sierra Club	16	Evening scoping meeting	ML110140232
			Sierra Club meeting	ML11348A013
			Letter	ML103370043
			Letter	ML110680515
Matthew Heyrman		17	Evening scoping meeting	ML110140232
Anita Rios	Ohio Green Party	18	People's hearing	ML11348A017
Kevin Kamps	Beyond Nuclear	19	People's hearing	ML11348A017
Al Compaan	Professor, University of Toledo	20	People's hearing	ML11348A017
Katie Hoepfl	Student, University of Toledo	21	People's hearing	ML11348A017
Tony Szilagye		22	People's hearing	ML11348A017
Ed McArdle	Sierra Club of Michigan	23	People's hearing	ML11348A017
Phyllis Oster		24	People's hearing	ML11348A017
Dave Ellison		25	People's hearing	ML11348A017
Michael Keegan	Coalition for a Nuclear Free Great Lakes Don't Waste Michigan	26	People's hearing	ML11348A017
Ralph Semrock	Associate Professor, Owens	27	People's hearing	ML11348A017
Mike Leonardi		28	People's hearing	ML11348A017
Unidentifiable Woman		29	People's hearing	ML11348A017
Eric Britton		30	People's hearing	ML11348A017
			E-mail	ML110680350
Suzanne Patser		31	Sierra Club meeting	ML11348A013
James Whitaker		32	Sierra Club meeting	ML11348A013
Scott Robinson		33	Sierra Club meeting	ML11348A013
Simone Morgan	Sierra Club	34	Sierra Club meeting	
			E-mail	ML110680350
Emily Journey		35	Sierra Club meeting	ML11348A013
Bob Patraicus		36	Sierra Club meeting	ML11348A013
Kevin Malcolm		37	Sierra Club meeting	ML11348A013
Doug Todd		38	Sierra Club meeting	ML11348A013

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Commenter	Affiliation (If Stated)	ID	Comment Source	ADAMS Accession Number
Connie Hammond	Sierra Club	39	Sierra Club meeting	ML11348A013
			E-mail	ML110680350
Bernadine Kent		40	Sierra Club meeting	ML11348A013
Unknown		41	Sierra Club meeting	ML11348A013
Pete Johnson		42	Sierra Club meeting	ML11348A013
Connie Gadwell-Newton	Ohio Green Party	43	Sierra Club meeting	ML11348A013
			E-mail	ML110680350
Lee Blackburn	Sierra Club	44	E-mail	ML103430609
			E-mail	ML110680350
Mary Knapp	Field Supervisor, U.S. Fish and Wildlife Service	45	Letter	ML110060289
John P. Froman	Chief, Peoria Tribe of Indians of Oklahoma	46	Letter	ML103570365
Dennis Kucinich	Member of Congress, 10th District Ohio House of Representatives	47	Letter	ML110680518
Marilyn & Paul Nesser		48	E-mail	ML110680519
Jessica Lillian Weinberg		49	E-mail	ML110680520
Erika Agner	Sierra Club	50	E-mail	ML110680350
Christian George	Sierra Club	51	E-mail	ML110680350
Amanda Baldino	Sierra Club	52	E-mail	ML110680451
Inez George	Sierra Club	53	E-mail	ML110680530
Leeza Perry	Sierra Club	54	E-mail	ML110680350
Jeremy Bantz	Sierra Club	55	E-mail	ML110680350
David Greene	Sierra Club	56	E-mail	ML110680537
Jean Puchstein	Sierra Club	57	E-mail	ML110680350
Sandy Bihn	Sierra Club	58	E-mail	ML110680350
Bob Greenbaum	Sierra Club	59	E-mail	ML110680350
Carol Rainey	Sierra Club	60	E-mail	ML110680350
Leonard Bildstein	Sierra Club	61	E-mail	ML110680455
Cate Renner	Sierra Club	62	E-mail	ML11116A124
Karen Hansen	Sierra Club	63	E-mail	ML110680529
Natalie Schafrath	Sierra Club	64	E-mail	ML110680532
Kathleen Bodnar	Sierra Club	65	E-mail	ML110680350

<b>Commenter</b>	<b>Affiliation (If Stated)</b>	<b>ID</b>	<b>Comment Source</b>	<b>ADAMS Accession Number</b>
Margaret Holfinger	Sierra Club	66	E-mail	ML110680350
Ben Shapiro	Sierra Club	67	E-mail	ML110680350
Susan Jones	Sierra Club	68	E-mail	ML110680453
Leslie Stansbery	Sierra Club	69	E-mail	ML110680528
Stephen & Connie Caruso	Sierra Club	70	E-mail	ML110680525
Robert Kyle	Sierra Club	71	E-mail	ML110680350
Andy Trokan	Sierra Club	72	E-mail	ML110680350
Joan DeLauro	Sierra Club	73	E-mail	ML110680350
Joan Lang	Sierra Club	74	E-mail	ML110680452
Jim Wagner	Sierra Club	75	E-mail	ML110680350
June Douglas	Sierra Club	76	E-mail	ML110680350
Tekla Lewin	Sierra Club	77	E-mail	ML110680539
Tim Wagner	Sierra Club	78	E-mail	ML110680350
Virginia Douglas	Sierra Club	79	E-mail	ML110680350
Mary Beth Lohse	Sierra Club	80	E-mail	ML110680350
George M. Williams	Sierra Club	81	E-mail	ML110680449
			E-mail	ML110680454
Donna Emig	Sierra Club	82	E-mail	ML110680350
Liz Loring	Sierra Club	83	E-mail	ML110680350
Lance Wilson	Sierra Club	84	E-mail	ML110680350
Mike Fremont	Sierra Club	85	E-mail	ML110680523
Nick Mellis	Sierra Club	86	E-mail	ML110680350
Paul Wojoski	Sierra Club	87	E-mail	ML110680350
Linda Milligan	Sierra Club	88	E-mail	ML110680350
Elisa Young	Sierra Club	89	E-mail	ML110680350
Matt Trokan	Sierra Club	90	E-mail	ML110680350

- 1 In order to evaluate the comments, the NRC staff gave each comment a unique identification
- 2 code that categorizes the comment by technical issue and allows each comment or set of
- 3 comments to be traced back to the commenter and original source (transcript, video recording,
- 4 letter, or e-mail) from which the comments were submitted.
- 5 Comments were placed into one of 17 technical issue categories, which are based on the topics
- 6 that will be contained within the staff's supplemental environmental impact statement (SEIS) for
- 7 Davis-Besse, as outlined by the GEIS. These technical issue categories and their abbreviation
- 8 codes are presented in Table A-2.

**Table A-2. Technical Issue Categories**

*Comments were divided into one of the 17 categories below, each of which has a unique abbreviation code.*

<b>Code</b>	<b>Technical Issue</b>
AL	Alternative energy sources
AM	Air & meteorology
AQ	Aquatic resources
CI <sup>(a)</sup>	Cumulative impacts
CR	Cultural resources
HH	Human health
HY	Hydrology
LR	License renewal & its process
LU <sup>(a)</sup>	Land use
NO <sup>(a)</sup>	Noise
OL	Opposition to license renewal
OS	Outside of scope <sup>(b)</sup>
PA	Postulated accidents & SAMA
RW	Radioactive & non-radioactive waste
SE	Socioeconomics
SL	Support of license renewal
TR	Terrestrial resources

<sup>(a)</sup> No comments specific to the categories of cumulative impacts, land use, or noise were submitted during the Davis-Besse scoping period.

<sup>(b)</sup> Outside of scope are those comments that pertain to issues that are not evaluated during the environmental review of license renewal and include, but are not limited to, issues such as need for power; emergency preparedness; safety; security; terrorism; and spent nuclear fuel storage and disposal.

Comments received during scoping applicable to this environmental review are presented in this section along with the NRC response. They are presented in the order shown in Table A-3. The comments that are outside the scope of the environmental review for Davis-Besse are not included here but can be found in the scoping summary report, which can be accessed through the Agencywide Documents Access and Management System (ADAMS), Accession No. ML11168A197.

**Table A-3. Comment Response Location in Order of Resource Area**

<b>Comment Category</b>	<b>Page</b>
Alternative Energy Sources (AL)	7
Air & Meteorology (AM)	19
Aquatic Resources (AQ)	20
Cultural Resources (CR)	23
Human Health (HH)	23
Hydrology (HY)	29
License Renewal and its Process (LR)	32
Opposition to License Renewal (OL)	37
Postulated Accidents & SAMA (PA)	42
Radioactive & Non-Radioactive Waste (RW)	43
Socioeconomics (SE)	47
Support of License Renewal (SL)	50
Terrestrial Resources (TR)	51

### **A.1.1 Alternative Energy Sources (AL)**

**Comment: 5-2-AL;** Research has shown that nuclear power is clean, is efficient and produces more energy at a lower cost than any other means of generation. So, it is important that we keep this plant in operation.

**Comment: 11-1-AL;** It's a priority for us as a company because Davis-Besse is a significant asset to our company. It provides a large source of safe, reliable, environmental friendly electricity to the surrounding area.

**Comment: 12-3-AL;** By extending the license here at Davis-Besse, it would continue to provide good clean power that's critical.

**Comment: 15-3-AL, 15-7-AL;** Research has shown that nuclear power is clean, it is efficient and it produces more energy at a lower cost than any other means of generation. So, it is important that we keep this plant in operation.

**Response:** *These comments are generally supportive of nuclear power, citing the cleanliness, efficiency and the cost of electricity. The discussion of alternatives, including license renewal, are presented in Chapter 8. No new and significant information was found as a result of these scoping comments and further evaluation was not considered in the development of the SEIS.*

**Comment: 16-6-AL;** In Ohio, the use of electricity has been increasing for a number of years. Now, with progressive legislation and Ohio Senate Bill 221, energy efficiency and conservation combined with the renewable sources of solar, wind and geothermal, these are providing so much additional and conserve energy to all plants and new coal plants in our state have been cancelled, and there's a strong movement to shut down the old polluting coal-fired plants.

**Comment: 16-27-AL;** In Ohio, the use of electricity has been decreasing for a number of years. Now with progressive legislation like Ohio's SB 221, energy efficiency and conservation, combined with the renewable sources of solar, wind, and geothermal, are providing so much additional and conserved energy that all plans for new coal plants in our state have been cancelled and there is a strong movement to shut down the old polluting coal-fired plants. The argument of US rising energy needs is irrational at best and at worst the resulting global warming would threaten our life-support system, and yes, our "way of life."

**Comment: 20-1-AL;** One of the things that I think is important to keep in mind is that First Energy and Davis-Besse provides about 8.3% of First Energy's baseload power generation, so that's important to recognize in terms of the alternatives. Now, in Ohio, Senate bill 221, which was passed in the spring of 2008, mandates for the investor-owned utilities that they should, achieve a higher efficiency by reducing demand by 2025 by 22%, a much larger number than the 8.3%, generation that's provided by Davis-Besse. And in addition, achieve 12 1/2% generation from renewals by 2025 and another 12 1/2% generation from so-called advanced energy, which may include new, new advanced nuclear, but continuation of Davis-Besse would not qualify for that additional gen..., for that 12 1/2%. Distributed generation will also qualify for a, a credit under the Senate bill 221. And alternative sources are very attractive for...wind, as Kevin mentioned, and also solar.

**Comment: 20-7-AL;** It may be done by advanced nuclear, and that's requiring NRC Generation III. Davis-Besse, I believe, is Generation II technology, but Generation III incorporates a passive safety systems. So even if the power goes out, such as when the tornado came through and disconnected the power plant from its emergency diesel generators, there would be passive safety equipment in the Gen-II, Gen-III design. And the Gen-III design would be for 60 years of operation instead of 40 years.

**Comment: 22-9-AL;** Here are a few suggestions. In the year 2021, Senate bill 221 will eliminate or generate as much power as Davis-Besse produces. If First Energy takes seriously the opportunities available for generating power through energy efficiency and making agreements for a better payoff for exceeding the energy efficiency targets the Senate bill 221 mandates, they can be more profitable without Davis-Besse. If they take an aggressive look at the potential of combined heat and power, wind, compressed air storage, solar, they can generate either through efficiency or through greater uses of existing resources, the needed capacity that the loss of Davis-Besse will create. There are solution for generating capacity. For every one cent invested in elec...in energy efficiency, three cents profit is gained. the solutions and incentives...alternative to the continuation of nuclear power to the elimination of nuclear power are already out there.

**Response:** *The comments are in general support of alternative energy production sources and reference The Ohio Senate Bill 221 as legislative support for renewable energy sources. The comments also represent a general opposition to nuclear energy.*

*The Ohio Senate Bill (Am. Sub. S. B. No. 221) passed through the Ohio House of Representatives on Tuesday, April 22, 2008, and it passed through the Ohio Senate on Wednesday April 23, 2008, the effective date of the bill was July 31, 2008.*

*The bill focuses on energy pricing and sources. The pricing of electricity is outside the scope of the environmental review and is not discussed further in the SEIS. According to the bill analysis published by the Ohio Legislative Service Commission, the primary points of the bill, as it relates to energy sources, are as follows:*



- 1 • *requires an electric distribution utility and an electric services company to provide a*  
2 *portion of their electricity supplies from alternative energy resources*
- 3 • *defines alternative energy resources as consisting of specified advanced energy*  
4 *resources and renewable energy resources with a placed-in-service date of*  
5 *January 1, 1998, or later, and as consisting of existing or new mercantile customer-sited*  
6 *resources*
- 7 • *specifies that the requisite portion of the electric supply derived from alternative energy*  
8 *sources must equal 25 percent of the total number of kilowatt hours of electricity sold by*  
9 *the utility or company to any and all retail electric consumers whose electric load centers*  
10 *are served by the utility and are located within the utility's certified territory or, in the case*  
11 *of an electric services company, are served by the company and are located within Ohio*
- 12 • *provides that half of the alternative energy can be generated from advanced energy*  
13 *resources, but at least half must be generated from renewable energy resources,*  
14 *including 0.5 percent from solar energy resources, subject to yearly, minimum,*  
15 *renewable and solar benchmarks that increase as a percentage of electric supply*  
16 *through 2024*
- 17 • *authorizes the Public Utilities Commission of Ohio (PUCO) to enforce the renewable*  
18 *energy and solar energy resource benchmarks through the assessment of compliance*  
19 *payments*
- 20 • *prescribes energy savings and peak demand reduction requirements for electric*  
21 *distribution utilities through 2025, sets yearly benchmarks, and authorizes PUCO*  
22 *enforcement of compliance through the assessment of forfeitures*
- 23 • *authorizes the PUCO to approve a revenue decoupling mechanism for an electric*  
24 *distribution utility if it reasonably aligns the interests of the utility and of its customers in*  
25 *favor of energy efficiency or energy conservation programs*
- 26 • *requires the PUCO, to the extent permitted by Federal law, to adopt rules establishing*  
27 *greenhouse gas (GHG) emissions reporting and carbon dioxide control planning*  
28 *requirements for each electric generating facility located in Ohio that is owned or*  
29 *operated by a public utility that is subject to PUCO jurisdiction and that emits GHGs,*  
30 *including facilities in operation on the act's effective date*

31 *The NRC staff is aware of Senate Bill 221 and incorporated information about the legislation into*  
32 *its own alternatives analysis. State regulatory agencies and FirstEnergy Nuclear Operating*  
33 *Company (FENOC) will ultimately decide whether the plant will continue to operate based on*  
34 *factors such as the need for power or other matters within the State's jurisdiction or the purview*  
35 *of the owners. Alternatives are discussed in Chapter 8, "Alternatives," of this SEIS; they include*  
36 *conservation (demand-side management) and renewable energy sources such as wind and*  
37 *solar energy.*

38 **Comment: 16-8-AL;** There is good reason why there are no nuclear power plants coming on  
39 line to replace the old ones. Wall Street will not support them. The normal up-front cost and a  
40 12- to 20-year length of time for completion makes it financially uncompetitive with wind and  
41 solar. On the latter, decentralize, meaning that jobs are being created all over the state. As  
42 compared to Davis Besse's extended shut-downs, if the wind stops blowing or the sun is behind  
43 a cloud, somewhere, it is likely not too serious or a long-term power shortage problem.

1 **Comment: 16-20-AL;** We are closing down Coal plants now because Ohio is actually using  
2 less electricity than they used to. We've got efficiency we've got solar we have wind we have  
3 geothermal we have all kinds of sustainable ways.

4 **Comment: 19-11-AL;** And, there was another, license extension, that I wanted to mention,  
5 that's being challenged. I brought some things to look at over here, some old posters from  
6 Seabrook New Hampshire, in the mid-1970s. you know, fifteen hundred people got arrested on  
7 a single day in 1977 trying to block the construction of Seabrook. Well, Seabrook has gone for  
8 a 20-year license extension and they've gone for it 20 years early, incredibly. They're only  
9 20 years old. They have 20 more years on their license, and they've asked for a 20-year  
10 license extension. So Paul Gunter, my coworker, has challenged this 20-year early application,  
11 and his main challenge is the wind power potential off the gulf of Maine, which is tremendous.  
12 So showing that wind power is a great alternative. And, I'll just close now, by saying that the  
13 wind power potential of the Great Lakes is there. That will be one of our contentions against  
14 Davis-Besse for 20 more years. And add to that solar potential, with the biggest solar panel  
15 manufacturing factory in the country right here in Toledo. Add to that the efficiency potential,  
16 and there's no need for 20 more years of radioactive Russian roulette on the Lake Erie  
17 shoreline. Thank you Very much.

18 **Comment: 20-6-AL;** But we, should also know that there are some very good alternatives for,  
19 generating electricity, and one of those normally not thought about as generation, but it's energy  
20 conservation. And that is now widely accepted as the cheapest way to get more effectively, to  
21 get more energy, it's to use our energy more, more wisely. And then there's a very strong wind  
22 resources and solar resources. So, the important thing that, we need to recognize is that, is that  
23 these components, energy conservation, wind and solar, are already mandated by Senate bill  
24 221 in the state of Ohio. And, windmills are, used by the, the publicly-owned, utilities, they are  
25 allowed by Ohio law to pass through, to pass those costs on to the customers, so, on to the  
26 consumers of the electricity. That, that might not have been my favorite way of doing it, but  
27 that's the way, the legislators have decided in the Public Utility Commission of Ohio.

28 **Comment: 20-9-AL;** So, let's take a little bit closer look at the resources that are available for  
29 wind. Lake Erie and the Lake Erie shore, as well as all of the Great Lakes, are great resources  
30 for, for wind energy. So, I, I'm showing here this, wind energy map. This is for the average  
31 wind power across the United States. And it may be hard to see from there, but, we hear a lot  
32 about the, the wind corridor in the Great Midwest, from Texas through to North Dakota. That's  
33 this, region of the Great Plains. But now, the wind, resources in...increase, the average wind  
34 power increases as you go from white, actually the key is down here, from white to the light blue  
35 to the darker blue and still darker, and you can see that, Ohio, for the most part, has a lot of  
36 wind resources that are similar to Texas. We hear about Texas because it has the most wind  
37 power of any of the any of the states. And Ohio has similar resources. But if you look at, in  
38 Lake Erie and on the near shore and, up to the border with Canada, you can see it's a very dark  
39 blue, and that's similar to some of these mountain passes here. So wind, resource availability in  
40 Lake Erie is really, really prime. much higher than almost any of the places in, in Texas, for  
41 example. So that's an indication that there really are tremendous resources out there and wind  
42 power is very competitive in terms of, rates for electricity generated by wind power. The big, let  
43 me just back up...One of the big issues with Texas, which is now struggling with getting the  
44 power, of course they have some major cities, but they can generate more than what can be  
45 used in their cities, is how you are going to get the power out to the big metropolitan areas like  
46 Chicago and Cleveland and Toledo and so on, and Detroit. That is not a problem when you  
47 generate the power in Lake Erie, we have a lot of major metropolitan areas that are very nearby.

**Comment: 20-10-AL;** For solar, Ohio has, actually very good solar isolation as well. and I want to point out that in this, in this Environmental Report, that's part of the First Energy petition for the renewal, there are some errors in that, in that report. For example, they, they say that the amount of sunlight in Ohio is less than half of what it is in some of the best areas in the country. that's a bit of a, an error and I'll point out why in just a moment. And then, they also used some data for the costs, which came from back in 1988, and the costs for solar photo-voltaic electricity has come down dramatically since 1988. One of the mistakes that is commonly, made when you think about solar, is you think about being able to see a sun, the sun in a clear day. And you think, you think, that, well, it's only on those clear days that photo-voltaics will generate usable power. And this is the kind of map that you would use if you were really worried only about direct sunlight, being able to have a clear sky, and being able to see a clear sun out there. And then when you take and you compare Toledo or, or Lake Erie with some areas in the Southwest, and I did the numbers here. actually, for the...for the South. when you compare Toledo with Orlando, even when you consider only direct sunshine, Toledo gets 75% of what Orlando does, down here in Florida. But it's not as good as San Diego, it's almost 60% of San Diego, >>>. and if you go out to the Mojave Desert, Toledo gets about 45%. So that's a number that's consistent with what, First Energy claimed in that report. However, the real data that you need to look at are the, us, the full sky radiation. The point of...Most solar panels are flat panels and they will accept light which is indirect, that is, as it comes scattered in hazy days or light cloudy days and light is scattered from those clouds and still make it to those panels. And so this is the appropriate math that needs to be looked for, the amount of electricity that can be produced by solar panels over the years. So, in that case, if you compared Toledo with Orlando, or Toledo with San Diego, Toledo gets 86% of what, Orlando gets, 79% of what Sand Diego gets. So the argument that the solar resources in Ohio, in Northern Ohio, are not very good, and actually you can see that the best resources here are Western Ohio and in certain...that's an argument that doesn't, work when you address solar. And that last point that I'd like to make about solar is that there are huge changes that have been happening in the last several years in terms of the costs of solar panels. And the cost driver on this is actually FirstEnergy, First Solar, sorry, First Solar, which is, started here in Toledo, by Toledo industrialists such as Harold, Harold McMaster, and our only US generating, US manufacturing facility is in Perrysburg.

**Comment: 20-12-AL;** Energy conservation, retro-fitting of homes and businesses and so with the more energy-efficient lights, and motors, and thermal efficiency saves, saves, save energy for everyone. It reduces the need for, generating capacity. Ohio has a lot of manufactures that supply components for wind turbines. The maintenance of wind turbines generates many jobs. I've already mentioned, First Solar is the largest manufacturer in the world. So manufacturing creates jobs. And there are several other PV manufacturers that are beginning, in Ohio, most of them actually in northwest Ohio, in the Toledo area. PV design and insulation creates a num...a large set of jobs.

**Comment: 21-2-AL;** So what I have done is done some statistical modeling using systems that are already in place here in northwest Ohio. I used one of the wind turbines in Bowling Green, owned by Bowling Green municipalities, and a solar array mounted on the home of Professor Compaan. This model is a little bit confusing. What it is here is on the X axis we have the volatility or the intermittency of the system that FirstEnergy mentioned. So what that means is that at some points throughout the day it can be high, it can be low. It's unexpected, the power production that would be produced. On here [indicating the Y axis] it's the actual output of the system. So along our curve here we have an entire wind, only wind system, and at the other end we have only solar. And, along the middle is a combination of the two. what I'm going to show you today is that it's not a matter of using one or the other. The combination of these

different forms of renewable energy that's really going to help us offset the loss of nuclear power by closing Davis-Besse. So over here on the end of the curve is where we have the least volatility in the system. For this specific northwest Ohio that turned out to be about half wind and half solar that's going to produce the best outcome for us. Just an example here of what I mean by this. So in a 100% wind system has a volatility something like this. This is the power production over the course of the week by the Bowling Green wind turbine. you can see it's pretty unexpected what it's going to produce throughout the day. And on the opposite end, a 100% solar system, follows a pattern, you only get power production during the day, but even throughout the day you not sure if you're going to get a sunny day, cloudy day things like that re unexpected...So, by optimizing the system, using similar rating, say one megawatt wind turbine farm and one megawatt solar array, you get something that's quite a bit more predictable. Now put this here against a demand curve. This is from EBCOT it's in Texas, but the demand curve for any big city is gonna look about the same. A lot of high peaks during the afternoon, evening hours and lower at night time when we're sleeping. It's quite a bit more predictable, it follows the demand curve. What I want to point out here, though is that my graph is still quite a bit volatile here, but it's only taking into consideration two specific sites. We only have one wind turbine and one solar array. But, if FirstEnergy were to take their resources and erect, um sorry, use the wind and solar throughout their entire area that they service. Solar, it's not going to be cloudy in all the areas that they service. That's exactly what the (Go to my summary slide, here) European Wind Energy Association in their annual report in 2009. They said exactly that. That as wind and solar is developed across the entire area, the volatility in one specific area does not infect the overall baseload that it's generating. That's another thing I'd like to point out in FirstEnergy's application for Renewal, they kept mentioning that solar and wind are not a good replacement because they can't satisfy a baseload. But, as Dr. Compaan mentioned in his speech, Davis-Besse only produces 8.3% of FirstEnergy's baseload. So, we're not trying to make these curves fit identical. It just has to back up the coal and everything else that's already being produced. So we're using a combination of wind, solar and all the other technologies that are out there. They'll be able to easily offset the production lost by Davis-Besse.

**Comment: 23-4-AL;** The second article I refer is the November, 2009 cover story in *Scientific American*. I bought this issue and bring it with me to almost everything I go to. This article is entitled "A Plan for Sustainable Future. How to Get All Energy from Wind, Solar and Water by 2030 using Present Technology." The article by Mark Z. Jacobsen of Stanford University and Mark A. Delucchi of University of California, Davis it is describe by the editors of *Scientific American* as a "pragmatic hard headed study." Supply 100% clean energy by 2030 at the same or lower cost of traditional fossil and nuclear resources. Frankly, I'm amazed by this article. This is something, I think, we've been waiting for, and something we should push.

**Comment: 25-4-AL;** We should come up with energy conservation and efficiency measures that replace that 8.3%. Forget creating any alternative fuels or advanced nuclear. Just energy in energy conservation efficiency alone, we make up for this. The system that requires that we maintain the amount of consumption that we currently have as part of the licensure relicensure application is absurd because so much of the future depends on our reduction of and our conservation and our efficient use of energy. It's absurd to perpetuate the existing system.

**Comment: 31-3-AL;** There are so many other clean ways to provide energy. Wind Solar geothermal there is no reason to bring a nuclear plant online. There would have to be some other agenda involved we hope that is not military agenda. But we know that we don't the electricity from that plant in this state.

**Comment: 35-2-AL;** I believe we should be going in different directions when it comes to supplying energy to our communities. Direction that is not destructive that can provide new green jobs. Thank you.

**Comment: 36-2-AL;** It is located there on the great lakes, the largest clean water source in the world and it seems extremely dangerous and unnecessary

**Comment: 39-3-AL;** We need to invest our money into green technologies that would create job and also help our economy which is leaving the toxic legacy for our children as well as these nuclear power plants.

**Comment: 41-1-AL;** I wish to join the wave of the future. Which is alternative energy sources. Fossil fuels and nuclear energy are part of the past.

**Comment: 30-4-AL, 34-6-AL, 39-9-AL, 43-7-AL, 44-5-AL, 50-4-AL, 51-4-AL, 53-4-AL, 54-4-AL, 57-4-AL, 58-4-AL, 59-4-AL, 60-4-AL, 62-4-AL, 65-4-AL, 66-4-AL, 67-4-AL, 69-4-AL, 70-4-AL, 71-A-AL, 72-4-AL, 73-4-AL, 74-4-AL, 75-4-AL, 76-4-AL, 77-4-AL, 78-4-AL, 79-4-AL, 80-4-AL, 81-4-AL, 81-9-AL, 82-4-AL, 83-4-AL, 84-4-AL, 85-4-AL, 86-4-AL, 87-4-AL, 88-4-AL, 89-4-AL, 90-4-AL;** I do not want Davis-Besse to continue generating electricity and want the Nuclear Regulatory Commission to end the operating license for the plant. I care about the environment and support clean energy solutions such as energy efficiency and renewable power, and I know that Davis-Besse compromises my safety and the safety of my loved ones.

**Comment: 55-4-AL;** I do not want Davis-Besse to continue generating electricity and want the Nuclear Regulatory Commission to end the operating license for the plant. I care about the environment and support clean energy solutions such as energy efficiency and renewable power, and I know that Davis-Besse compromises my safety and the safety of potentially everyone that lives in the entire Midwest. The risk is unacceptable.

**Comment: 52-4-AL;** I do not want Davis-Besse to continue generating electricity and want the Nuclear Regulatory Commission to end the operating license for the plant. I care about the environment and support clean energy solutions such as energy efficiency and renewable power, and I know that Davis-Besse compromises my safety and the safety of my loved ones. This concerns me much.

**Comment: 68-4-AL;** I do not want Davis-Besse to continue generating electricity and want the Nuclear Regulatory Commission to end the operating license for the plant. I care about the environment and support clean energy solutions such as energy efficiency and renewable power, and I know that Davis-Besse compromises my safety and the safety of my loved ones. So Please stop the relicense of this very dangerous power plant it is not worth risking the lives of millions of people for energy when there are safer and cheaper options out there.

**Comment: 61-4-AL;** I do not want Davis-Besse to continue generating electricity and want the Nuclear Regulatory Commission to end the operating license for the plant. I care about the environment and support clean energy solutions such as energy efficiency and renewable power, and I know that Davis-Besse compromises my safety and the safety of my loved ones. This plant has the worst safety record in the U.S.A. and should be closed! You have no right to continue operating this unsafe plant. We have two coal plants in the area that produce more than enough electricity for this area and are safe!

**Comment: 63-4-AL;** There have been too many near-disasters at this plant. This, because of its proximity to the Great lakes, is unconscionable! To continue to put resources into this risky

1 plant and to continue to endure the toxic side effects is insane! We should be putting all our  
2 energy investments into clean, safe, green alternatives, and that does NOT include nuclear  
3 power!

4 **Comment: 64-4-AL;** It's high time we step up our efforts to help protect the future generations  
5 by doing what we can to ensure a safe environment for species diversity. We cannot live in this  
6 world without being connected to the web of life that exists in every ecosystem. The nuclear  
7 waste generated from this plant would not only effect ourselves, and our children, but every  
8 species that struggles to survive as well. As someone who is SUPPOSE to represent the  
9 demands on their constituents I hope it is clear to you that Ohioans DON'T AGREE with this  
10 form of energy!

11 **Comment: 56-4-AL;** The Davis-Besse power plant must stop generating electricity and the  
12 Nuclear Regulatory Commission must end the operating license for the plant. In 2002, the  
13 Davis-Besse plant nearly melted down almost causing a nuclear disaster. Neither First Energy  
14 nor the Nuclear Regulatory Commission discovered an enormous rust hole in the reactor head  
15 until it was almost too late! According to the Nuclear Regulatory Commission, 2 of the top 5  
16 most dangerous nuclear incidences since 1979 have happened at Davis-Besse. Nuclear power  
17 has too many problems from waste to extreme expense to oversight. This is not an  
18 environmentally sound solution. I support clean energy solutions such as energy efficiency and  
19 renewable power, and I know that Davis-Besse compromises my safety and the safety of my  
20 loved ones. Nuclear power uses and pollutes significant amounts of water, while the mining,  
21 transportation, and enriching of uranium is carbon intensive which contributes to global  
22 warming.

23 **Comment: 85-4-AL;** I do not want Davis Besse to continue generating electricity and want the  
24 Nuclear Regulatory Commission to end the operating license for the plant. I care about the  
25 environment and support clean energy solutions such as energy efficiency and renewable  
26 power, and I know that Davis Besse compromises my safety and the safety of my loved ones.  
27 In the early 80s Cincinnati's Zimmer Nuclear Plant was adjudged, according to the Wall Street  
28 Journal, to be the worst-built nuke plant in the U.S., for a number of reasons, one being that  
29 much of the crucial reactor steel was bought from a local scrap dealer. It could have ruined the  
30 Ohio River downstream from Cincinnati all the way to New Orleans. Davis-Besse could wreck  
31 Lake Erie and quite a land area around Toledo. Save us from that! We can do it cheaper, safer  
32 and cleaner with windmills in the lake.

33 **Response:** *These comments relate to the use of renewal sources of energy as an alternative*  
34 *to nuclear power. The NRC staff evaluated reasonable alternatives in Chapter 8, "Alternatives."*  
35 *In this chapter, the staff examines the potential environmental impacts of alternatives to license*  
36 *renewal for Davis-Besse, as well as alternatives that may reduce or avoid adverse*  
37 *environmental impacts from license renewal and when and where these alternatives are*  
38 *applicable.*

39 *In evaluating alternatives to license renewal, the NRC staff first selected energy technologies or*  
40 *options currently in commercial operation, as well as some technologies not currently in*  
41 *commercial operation but likely to be commercially available by the time the current*  
42 *Davis-Besse operating license expires in 2017. Second, the NRC staff screened the*  
43 *alternatives to remove those that cannot meet future system needs. Then, the NRC staff*  
44 *screened the remaining options to remove those whose costs or benefits do not justify inclusion*  
45 *in the range of reasonable alternatives. The remaining alternatives, constituted comprise the*  
46 *alternatives to the proposed action that the NRC staff evaluated in-depth in this Chapter 8 of the*

1 *SEIS. The NRC staff considered 17 energy technology options and alternatives to the proposed*  
 2 *action and then narrowed to the three alternatives considered.*

3 *The alternatives evaluated in-depth include the following:*

- 4 • *natural-gas-fired combined-cycle (NGCC);*
- 5 • *combination alternative (wind, solar, NGCC, and compressed air energy storage); and*
- 6 • *coal-fired power.*

7 *Other alternatives considered, but not evaluated further, are listed below:*

- 8 • *wind power,*
- 9 • *wind power with compressed air energy storage,*
- 10 • *solar power,*
- 11 • *solar power with compressed air energy storage,*
- 12 • *wood waste,*
- 13 • *conventional hydroelectric power,*
- 14 • *ocean wave and current energy,*
- 15 • *geothermal power,*
- 16 • *municipal solid waste (MSW),*
- 17 • *biofuels,*
- 18 • *oil-fired power,*
- 19 • *fuel cells,*
- 20 • *energy conservation and energy efficiency, and*
- 21 • *purchased power.*

22 *The NRC staff's alternatives analysis also involved consideration of combinations of alternatives*  
 23 *including renewable technologies and conventional baseload technologies, as well as options*  
 24 *not involving new generation capacity such as purchased power and conservation measures.*

25 **Comment: 20-11-AL;** They've been, leading the cost reductions. So if you look here, this is a  
 26 study that was done by Deutsch Bank and updated in 2009. It doesn't go back, to 1998, which  
 27 is when, when First Energy pulled their numbers, but, you can, you can extrapolate back further  
 28 if you want. There, it was something on the order of 40 cents/kilowatt-hour for the levelized cost  
 29 of electricity, as it's called. but in 2010, the cost is about 20 centers/kilowatt-hour for cadmium  
 30 telluride. This is, this is the type of material in the panels that are made by First Solar. Some of  
 31 the other kinds of solar panels are shown here, a little bit higher in cost. But what Deutsch Bank  
 32 projected is that there's going to be a crossover, a convergence between the cost of  
 33 solar-generated electricity, as you go out here to, what is the number, it's like 2017 or so, so,  
 34 2017, at about the time when, when FirstEnergy wants to extend the license on the plant, solar  
 35 is going to be, completely competitive, if not lower cost than, the electricity, than the  
 36 conventional electricity. Notice that Deutsch Bank is using an average over the United States.  
 37 Now the cost of electricity in the FirstEnergy territory is actually higher, those of you who live in  
 38 FirstEnergy territory, your home costs, your home electricity costs are something like 12 or  
 39 12 1/2 cents/kilowatt-hour, so the curve for us should really start a little bit higher, and that  
 40 convergence will happen even sooner. So First Energy has the option of extending, a nuclear  
 41 generating plant with all of its associated dangers and also its costs. The cost of nuclear  
 42 generated power is high, higher than most of the baseload, generating capacity of FirstEnergy.  
 43 And its costs is continuing to increase. The alternative is to jump on some of the new  
 44 technology, jump on those bandwagons, and those costs are decreasing. So that's the kind of  
 45 options that FirstEnergy has, and you'd think that if they really look at it seriously and look at the

options that they ought to conclude, that some of these alternative forms of electricity are the ones that ought to be, the ones, that are developed for the long-term future of their, of their company. So, just to make one final point, and that is alternative, alternative energy resources generate lots of jobs. They actually generate, many more jobs than what nuclear power does.

**Comment: 16-28-AL;** There is good reason why there are no new nuclear power plants coming online to replace the old ones. Wall Street will not support them. The enormous up-front costs and 12-20 year length of time for completion makes them financially uncompetitive with wind and solar. And the latter are decentralized, meaning that jobs are being created all over the state. As compared to Davis Besse's extended shutdowns, if the wind stops blowing or the sun is behind a cloud somewhere, there is likely not to be a serious or long-term power shortage problem.

**Response:** *These comments oppose nuclear power based on the costs associated with construction and operation when compared to other alternative sources of power. The regulatory authority over licensee economics falls within the jurisdiction of the states and, to some extent, the Federal Energy Regulatory Commission (FERC). The proposed rule for license renewal included a cost-benefit analysis and consideration of licensee economics as part of the National Environmental Policy Act (NEPA) review. However, during the comment period, state, Federal, and licensee representatives expressed concern about the use of economic costs and cost-benefit balancing in the proposed rule and the GEIS. They noted that the President's Council on Environmental Quality (CEQ) regulations interpret NEPA to require only an assessment of the cumulative effects of a proposed Federal action on the natural and man-made environment, and the determination of the need for generating capacity has always been the states' responsibility.*

*For this reason, the purpose and need for the proposed action (i.e., license renewal) is defined in the GEIS as follows:*

*The purpose and need for the proposed action (renewal of an operating license) is to provide an option that allows for power generation capability beyond the term of a current nuclear power plant operating license to meet future system generating needs, as such needs may be determined by state, licensee, and, where authorized, Federal (other than NRC) decisionmakers.*

*Title 10 of the Code of Federal Regulations, Section 51.95(c)(2) (10 CFR 51.95(c)(2)) states the following:*

*The supplemental environmental impact statement for license renewal is not required to include discussion of need for power or the economic costs and economic benefits of the proposed action except insofar as such benefits and costs are either essential for a determination regarding the inclusion of an alternative in the range of alternatives considered or relevant to mitigation.*

*The NRC staff identified feasible technologies in the GEIS, and the staff will use information in the GEIS, updating it as necessary to reflect recent technological advancements, as the basis for its alternative analysis. Since 1996, many energy technologies have evolved significantly in capability and cost, while regulatory structures have changed to either promote or impede development of particular alternatives, of this SEIS.*

*As a result, the analyses include updated information from the following sources:*



- 1 • *Energy Information Administration (EIA),*
- 2 • *other offices within the Department of Energy (DOE),*
- 3 • *U.S. Environmental Protection Agency (EPA),*
- 4 • *industry sources and publications, and*
- 5 • *information submitted by the applicant in the FENOC Environmental Report (ER).*

6 *The result of this analysis provided for three in-depth alternatives—Natural-gas-fired*  
 7 *combined-cycle (NGCC), combination alternative (wind, solar, NGCC, and compressed air*  
 8 *energy storage), coal-fired power. The details of this analysis can be viewed in Chapter 8,*  
 9 *“Alternatives.”*

10 **Comment: 21-1-AL;** Hello everybody, my name is Katie Hopeful, student of Professor  
 11 Compaan's at the University of Toledo. I'm a major in physics. My research is in this renewable  
 12 energy area. So, what I'm going to be talking about today is alternatives to nuclear power. In  
 13 FirstEnergy's license renewal application, they dismissed the possibility of almost any form of  
 14 renewable energy to replace the power production that would be lost by the closing of  
 15 Davis-Besse.

16 **Response:** *This comment questions FENOC's evaluation of alternatives to relicensing*  
 17 *Davis-Besse contained in the ER. The requirements associated with the analysis of alternatives*  
 18 *for FENOC's ER are based on NRC regulations.*

19 *Section 51.43(c) of 10 CFR states the following: “Analysis. The Environmental Report must*  
 20 *include an analysis that considers and balances the environmental effects of the proposed*  
 21 *action, the environmental impacts of alternatives to the proposed action, and alternatives*  
 22 *available for reducing or avoiding adverse environmental effects...”*

23 *The acceptance review determines whether the application contains sufficient information to*  
 24 *allow the NRC staff to proceed with the environmental review. On October 18, 2010, the NRC*  
 25 *staff determined that the application was complete and acceptable for docketing, in accordance*  
 26 *with 10 CFR 51.43. The acceptance of the application shows that the applicant met the*  
 27 *regulatory requirements, but it does not reflect the opinion of the NRC in the selection of*  
 28 *alternatives. The NRC conducts an independent review of alternatives, selected based on the*  
 29 *technical experience of the agency, in accordance with NEPA. This review is documented in*  
 30 *Chapter 8 of this SEIS. In contrast to the Davis-Besse ER, Chapter 8 reflects analysis in depth*  
 31 *of a combination alternative that includes renewable energies.*

32 **Comment: 21-3-AL;** the only other thing that I was wanting to mention is the jobs that are  
 33 going to be created. As he had already mentioned, the maintenance of the wind turbines; the  
 34 installation of the protects; and also the forecasting that can be done. This was also mentioned  
 35 in the European Wind Energy Association's annual report. The new technologies. They are  
 36 able to forecast four hours ahead exactly what the wind speeds are going to be. So that they  
 37 can predict if they need to have boost up the coal or other forms of production. It makes it really  
 38 a lot more stable. So, this argument of volatility doesn't quite hold.

39 **Response:** *This comment relates to the benefit of creating jobs by supporting alternative*  
 40 *energy sources. The NRC regulations at 10 CFR 51.71(d) require that a SEIS consider the*  
 41 *environmental, economic, and technical impacts, and other benefits and costs of the proposed*  
 42 *action and alternatives.*

*The evaluation of each alternative considers the environmental impacts across seven impact categories: (1) air quality, (2) groundwater use and quality, (3) surface water use and quality, (4) ecology, (5) human health, (6) socioeconomics, and (7) waste management.*

*Socioeconomic impacts are defined in terms of changes to the demographic and economic characteristics and social conditions of a region. For example, the number of jobs created by the construction and operation of an alternative could affect regional employment, income, and expenditures. The NRC acknowledges that job creation would result from alternatives. Two types of job creation would likely result— construction-related jobs (transient, short in duration, and less likely to have a long-term socioeconomic impact) and operation-related jobs in support of operations (greater potential for permanent, long-term socioeconomic impacts). Workforce requirements for the construction and operation of each in-depth alternative were evaluated in order to measure their possible effects on current socioeconomic conditions. The results of each analysis are documented in Chapter 8, “Alternatives.”*

**Comment: 23-2-AL;** I would first like to quote excerpts from an article in *The Nation* magazine dated February 15, 2010, “The Case for Grade Power.” This is generally referred to as using waste heat or cogeneration from large facilities of which Ohio has plenty. The article uses Ohio as an example for this opportunity. The article states that according to an analysis by Recycled Energy Development, the Libbey Glass Plant in Toledo, the Arselor (unintelligible) Middle School in Cleveland and the (unintelligible) Chemical Plant in Cincinnati together produces enough waste heat to produce between 145 and 185 megawatts of additional electricity. The study also indicates that Ohio has enough cogeneration potential to retire up to 8 nuclear power plants. According to Oak Ridge National Laboratory this strategy will cost less than half of a coal plant.

**Comment: 23-3-AL;** A recent report by Policy Matters of Ohio estimates that recycling 7.7 GigaWatts would require a \$10.5 billion investment with a three year payback. This would have the further effect of making Ohio industries more competitive, more profit, saving both jobs and the environment.

**Response:** *These comments request the NRC staff to consider cogeneration and energy recycling as alternatives to license renewal. Cogeneration, also known as combined heat and power (CHP) is the simultaneous production of both heat and power. Davis-Besse produces electricity but dispels the waste heat through the cooling water system, as described in Chapter 2. In cogeneration plants, the waste heat (typically in the form of steam) is captured for other uses such as industrial process requiring steam or district heating or both. District heating systems that transfer waste heat, in the form of steam, for residential and commercial heating, are currently in operation in cities such as New York, NY, Detroit, MI, and Boston, MA. Currently no district heating systems in the U.S. are supplied with nuclear reactors as the steam source; however, countries such as Russia, the Czech Republic, Slovakia, Hungary, Bulgaria, and Switzerland have nuclear powered district heating from cogeneration plants.*

*The NRC recognizes that cogeneration plants have the potential to offset power demand. In July 2008, the Ohio legislature passed Senate Bill 221, which established an energy-efficiency resource standard that requires electric utilities to implement an Energy-Efficiency and Peak Demand Reduction Program that will yield a cumulative electricity savings of 22 percent by the end of 2025, with specific annual benchmarks. Cogeneration can be retrofitted to existing power plants, and represents an option that states and utilities may use to reduce their need for power generation capability. The need for power may be determined by state, licensee, and, where authorized, Federal (other than NRC) decisionmakers. If the renewed license is issued,*

1 *state regulatory agencies and FENOC will ultimately decide whether the plant will continue to*  
 2 *operate based on factors such as the need for power or other matters within the state's*  
 3 *jurisdiction or the purview of the owners.*

4 *The NRC did not consider cogeneration specifically as an alternative but did evaluate energy*  
 5 *efficiency and conservation. Further information can be found in Chapter 8, "Alternatives."*

## 6 **A.1.2 Air & Meteorology (AM)**

7 **Comment: 16-5-AM;** Added together, the disposal to support the industry's nuclear power also  
 8 comes with a heavy carbon price, which means that nuclear power will not address the  
 9 pollution, global warming.

10 **Comment: 16-7-AM;** The argument of rising energy is irrational at best, and at worst, the  
 11 resulting global warming would threaten our life support system and, yes, our way of life.

12 **Comment: 16-26-AM;** Enormous amounts of energy go into this process. Added together  
 13 along with disposal, these supporting industries cause nuclear power to also come with a heavy  
 14 carbon price, which means that nuclear power will not address but will worsen global warming.

15 **Comment: 23-6-AM;** It is not carbon free as claimed, and not sustainable.

16 **Comment: 39-2-AM;** The process of production of nuclear energy from mining through  
 17 disposal of waste is very carbon intensive and would contribute heavily to global warming.

18 **Response:** *These comments represent concerns about greenhouse gases (GHGs), not*  
 19 *specifically for the operation of the nuclear power plant but generally from impacts from the*  
 20 *entire nuclear fuel cycle. A large number of technical studies, including calculations and*  
 21 *estimates of the amount of GHGs emitted by nuclear and other power generation options, are*  
 22 *available in literature. These studies, however, are inconsistent in their application of full*  
 23 *lifecycle analyses, including plant construction, decommissioning, and resource extraction*  
 24 *(uranium ore, fossil fuel). Almost every existing study has been critiqued, and its assumptions*  
 25 *challenged by later authors. Therefore, no single study has been selected to represent*  
 26 *definitive results in this SEIS. Instead, the results from a variety of the studies are presented in*  
 27 *SEIS Tables 6.2-1, 6.2-2, and 6.2-3 to provide a weight-of-evidence argument comparing the*  
 28 *relative GHG emissions resulting from the proposed Davis-Besse relicensing compared to the*  
 29 *potential alternative use of coal-fired plants, natural gas-fired plants, and renewable energy*  
 30 *sources. The NRC staff provides a more detailed discussion on GHGs in Chapter 6, where*  
 31 *comparisons of GHG emissions are presented from a variety of energy generation technologies.*  
 32 *The NRC staff's analysis of alternatives in Chapter 8 also addresses relative levels of GHG*  
 33 *emissions for alternatives.*

34 **Comment: 14-21-AM;** Transformer fires cause unique pollutions such as dioxin. Since the  
 35 cause of the 2009 Davis-Besse transformer fire has not been determined, the possibility of  
 36 another fire must be considered. The EIS must include the impact of missions created by  
 37 transformer fires.

38 **Response:** *This comment expresses concerns regarding the air pollution created by a*  
 39 *transformer fire and the potential release of toxins as a result of postulated future failures of the*  
 40 *transformer. A polychlorinated biphenyls (PCB) transformer is a transformer that contains PCBs*  
 41 *at concentrations greater than 500 parts per million (ppm). From 1929 through 1979, these*  
 42 *transformers were installed in apartments, residential and commercial buildings, industrial*

1 facilities, campuses, and shopping centers. PCBs are used in electrical transformers because  
2 of their useful quality as being a fire retardant.

3 The EPA regulates the use, storage and disposal of PCB transformers in accordance with the  
4 Toxic Substances Control Act (15 USC 2605) promulgated under 40 CFR Part 761.  
5 PCB-contaminated transformers containing between 50 and 499 ppm PCBs are also subject to  
6 EPA's regulations. Davis-Besse, at the time of construction, had PCB transformers; however, in  
7 1992, FENOC completed a program to eliminate PCB transformers onsite. Information relating  
8 to the transformer fire and air emissions can be found in Chapter 2 of this SEIS. Further  
9 information on the regulation of PCB transformers can be found at  
10 <http://www.epa.gov/epawaste/hazard/tsd/pcbs/index.htm>.

### 11 A.1.3 Aquatic Resources (AQ)

12 **Comment: 14-3-AQ;** Another is the possible effect on the seven-billion-dollar fishery in Lake  
13 Erie. Specifically, I think you should look at how the wastewater and how the temperature  
14 effluent from this plant would affect and possibly affect indicia species such is the Asian carp. In  
15 other words, does the operation of Davis-Besse make it more or less likely that indicia species  
16 could come in here and ruin our fishing.

17 **Comment: 22-2-AQ;** We need to protect our water resources first from the effects of nuclear  
18 forms of pollution. Lake Erie provides drinking water and other consumptive uses to millions of  
19 people and many different industries in northern Ohio. We rely on Lake Erie for recreation, and  
20 we are entrusted to care for and protect the Lake for future generations as well. They have as  
21 much a right to the use and enjoyment of Lake Erie as our present generation, even if the  
22 comments do not agree. Davis-Besse is one of the greatest threats to the health of our Lake.  
23 Davis-Besse was strategically located on Lake Erie to meet the tremendous needs of  
24 Davis-Besse for water as a coolant. This is great for Davis-Besse but not so good for the Lake.  
25 Davis-Besse uses water from the Lake and spews it back as thermal pollution. Over the years,  
26 this has had consequences for Lake Erie. We have once again had increasing algae problems  
27 for Lake Erie. the growth of *lyngbya wollei*, a toxic algae, has accelerated over the past few  
28 years along with *microcystis*. These toxic algae have numerous conditions which contribute to  
29 their growth. One, of course, is the presence of ample amount of phosphorous and nitrogen.  
30 Another ingredient is an abundance of warm water. We have billions of gallons of thermal  
31 pollution from the power plants surrounding Lake Erie.

32 **Comment: 22-3-AQ;** studies on water use, fish kills, and the thermal impacts at the bay shore  
33 park land are over 30 years old. The intake for Davis-Besse is in less than 30 feet of water in  
34 the Great Lakes...should have been...in the Great Lakes, in Lake Erie's shallowest most  
35 biologically productive waters. Davis-Besse uses an estimated 50 million gallons of water a day  
36 which causes fish kills and thermal impacts. While cooling towers at Davis-Besse limit water  
37 use and fish kills with the best available technology, there should be an assessment of water  
38 use and fish kills. This request is made as the number of walleye are declining from an ODNRS  
39 estimate of 80 million about 5 years ago to less than 20 million in 2010.

40 **Comment: 22-5-AQ;** If Davis-Besse were to close on schedule, there would be fewer fish killed  
41 and no more warm water discharge. The estimated number of fish that would not be killed is  
42 unknown because there are no counts of fish impingement, that is, fish caught against screens,  
43 and entrainments, fish that go through screens. In assessing whether Davis-Besse should  
44 remain open or closed, an updated, independent analysis of the Davis-Besse water impacts, to  
45 fish impingement and entrainment and thermal impacts using Clean Water Act 316 A and B

protocol needs to be conducted. If the incremental increase in fish kills and added temperature to the water in aiding algae growth and in decreasing walleye numbers, the environmental and economic impact of the fish kills and algae growth should be considered in the requested re-licensing of Davis-Besse. Furthermore, should the licensing go forward, the license needs to require periodic impingement and entrainment fish counts and thermal mixing zone plume impacts on algae growth and water quality.

**Comment: 26-9-AQ;** In addition, a scoping comment I have is the thermal pollution coming off the nuclear power plant. It's about a thousand nine hundred, about nine hundred megawatt facility. That's close to three thousand megawatts of thermal heat coming off of that. And, as we've seen, Lake Erie is beyond the tipping point when it comes to algal blooms. We are beyond that point. We have several facilities in the western basin of Lake Erie; several coal plants, and several nuke plants and the Lake cannot take the load. So I am requesting that the algal blooms that are occurring on Lake Erie, the *lyngbya wollei*, which is a toxic algae - - it's leading to the eutrophication of Lake Erie, the death of Lake Erie, I am requesting that this concept of algal blooms be investigated, and thermal pollution from the nuclear power plant be considered.

**Comment: 16-17-AQ;** We are also concerned about fish and Lake Erie and the heat coming out of the plant.

**Comment: 19-10-AQ;** So, just to conclude, I'd like to leave you all with some hope that now license extensions are being seriously challenged, almost the minute that they're brought up. Another one to mention is Indian Point, New York, River Keeper, Hudson River Keeper headed by Bobby Kennedy Junior, has seriously challenged the Indian Point license extension. The State of New York has joined that proceeding. The Attorney General of New York, the Environmental Department of New York, they are also requiring now Indian Point to install cooling towers, to lessen the thermal damage to the Hudson River, just like the thermal damage, the catastrophic destruction of marine organisms going on at these plants that lack cooling towers. That's not an issue at Davis-Besse because they have a cooling tower. But as we raised Fermi III, we add up all the thermal impacts, of all power plants in this neck of the woods, and all the toxic chemicals they're releasing, I'm talking nuclear and coal and others. You got to look at even the thermal impacts going on now, the destruction of the eco-system in Lake Erie, especially when Fermi III is being proposed.

**Comment: 29-1-AQ;** Resource Center and talk about the rise in microcystine levels due to the thermal pollution. And how that. I mean are they aware that did anyone comment on that

**Comment: 29-2-AQ;** Are they aware! That did anyone comment on that for them.

**Comment: 29-4-AQ;** No they don't. I just wanted to make sure that someone said that to them. And realize that the microcystine levels are rising.

**Response:** *These comments express concern over the health of Lake Erie. The concerns cite the presence of nuisance species and thermal pollution in the lake.*

*The heated effluents of nuclear power plants can cause mortality among fish and other aquatic organisms from either thermal discharge effects or cold shock. Temperatures high enough to kill organisms are found in the cooling water systems, often in the area nearest the effluent discharge structure. Because thermal effects were among the earliest potential impacts identified for power plant operation, a great deal of research and regulatory effort has been aimed at understanding and controlling thermal discharges. Upper lethal temperatures (and*

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various other expressions of temperature tolerance) have been determined for many important species and life stages. As a result, conditions that can lead to thermal discharge effects are relatively predictable.

A variety of nuisance organisms or nonnative species may become established or proliferate as a result of power plant operations, including fouling organisms such as the recently introduced zebra mussel, *Dreissena polymorpha*.

Mitigative measures have been employed at Davis-Besse to reduce the potential for thermal discharge effects. Davis-Besse is equipped with a cooling tower, offshore intake, closed intake canal, bottom intake, and a high-velocity discharge nozzle. The high-velocity discharge nozzle enhances the rapid mixing and heat dissipation of the heated effluent at the outfall.

Colonization of Lake Erie by zebra mussels resulted in several years of improved water clarity and dramatic food web changes, especially a shift in algal production from phytoplankton to bottom-dwelling algae and plants; however, recently, the zebra mussels have been linked to the blue-green alga (cyanobacteria) *Microcystis aeruginosa*. *Microcystis* had been a common species in Lake Erie for at least a century but recently has grown into nuisance bloom proportions. Research performed by the Great Lakes Environmental Research Laboratory (GLERL) showed video evidence of zebra mussels' selective eating habits. GLERL was able to capture the zebra mussels filtering the water, regardless of the presence of *microcystis*, and releasing the *microcystis aeruginosa* back into the lake. The zebra mussels however continued to eat the other algae. Zebra mussels, in response to the consumption of the algae, release phosphorous that, in turn, feeds the *microcystis*, further facilitating their growth.

The concentrations of phosphorous, despite years of decline, have recently been showing a gradual increase. Phosphorous has been linked to *microcystis*; however, it has also been theorized, coupled with thermal pollution, to encourage the growth of *lyngbya wollei*, a toxic algae. In Maumee Bay, large populations of *lyngbya wollei* have recently emerged. Research indicates the concern was initially detected in 2006, and the population has since been growing. The Ohio EPA, Division of Surface Water, has the authority over the Maumee Bay. According to the Ohio EPA:

[L]ittle scientific information exists to determine the complicated biological processes that encourage the spread of *Lyngbya wollei*. In order to investigate this issue further, Ohio EPA has formed a Phosphorus Task Force to more formally review the phosphorus loading data from Ohio tributaries to Lake Erie; to consider possible relationships between trends in dissolved reactive phosphorus loading and in-lake conditions; to determine possible causes for increased soluble phosphorus loading; and, to evaluate possible management options for reducing soluble phosphorus loading.

Regarding studies under Sections 316(a) and 316(b) of the Clean Water Act, the Ohio EPA, and not the NRC, is responsible for regulating Davis-Besse's intake and discharge through the National Pollutant Discharge Elimination System (NPDES) permitting process and for implementing the requirements of Sections 316(a) and 316(b). Modifications to the NPDES permit are outside the regulatory authority of the NRC. The Ohio EPA will ultimately decide if modification to the permit is necessary in response to the presence of *microcystis aeruginosa* and *lyngbya wollei*.

The Davis-Besse discharge, however, is not a major contributor of phosphorous to Lake Erie. The source of nuisance populations of *microcystis aeruginosa* or *lyngbya wollei* or both have not

1 *been observed near the discharge location of Davis-Besse or the immediate surrounding area.*  
 2 *The NRC staff acknowledges that Lake Erie is experiencing cumulative impacts to its water*  
 3 *resources as a result of these species. These impacts have been included in Chapter 4 under*  
 4 *cumulative impacts.*

5 **Comment: 45-2-AQ;** There are no Federal wilderness areas or designated critical habitat  
 6 within the vicinity of the proposed site. Davis-Besse consists of 954 acres, of which  
 7 approximately  
 8 733 acres are marshland that is leased to the U.S. Government as part of the Ottawa National  
 9 Wildlife Refuge. In a letter dated December 16, 2009, we provided comments to FENOC on the  
 10 proposed 20-year renewal of the operating license for Davis-Besse. At this time we have no  
 11 additional comments.

12 **Response:** *This comment was provided by the USFWS. The NRC staff incorporated the*  
 13 *USFWS's information provided in this comment into the draft SEIS, including the information in*  
 14 *the referenced December 16, 2009, letter to FENOC, which was provided in Appendix C of*  
 15 *FENOC's ER.*

#### 16 **A.1.4 Cultural Resources (CR)**

17 **Comment: 46-1-AR;** The Peoria Tribe has no objection to the proposed construction.  
 18 However, if any human skeletal remains and/or any objects falling under NAGPRA are  
 19 uncovered during construction, the construction should stop immediately, and the appropriate  
 20 persons, including state and tribal NAGPRA representatives contacted.

21 **Response:** *The staff addresses the potential impacts to Cultural Resources associated with*  
 22 *renewing the Davis-Besse operating license in Chapter 2. Programs associated with new*  
 23 *ground disturbance related to refurbishment and/or the inadvertent discovery of Cultural*  
 24 *Resources is described and/or sited in Chapter 3 and Chapter 4 of this SEIS. Finally, the*  
 25 *environmental impacts of alternatives evaluated in depth is discussed in Chapter 8 of the SEIS,*  
 26 *including cultural resource impacts.*

#### 27 **A.1.5 Human Health (HH)**

28 **Comment: 14-4-HH;** There are several safety issues that impact on the environmental  
 29 questions. First of all, I personally know a first responder. We've had conversations about  
 30 Davis-Besse. He told me that they have been told that in the event of some sort of accident, the  
 31 only thing they have to worry about is radioactive iodine, and since they will be given pills for  
 32 radioactive iodine, they don't even have to worry about that.

33 **Comment: 14-10-HH;** Also, downwind from Davis-Besse in the local communities here, there  
 34 is a cancer cluster. The state studied this cluster and it was woefully inadequate. It consisted of  
 35 dosimeters, given to about a fifth of the families. They went out in the yards and ran the  
 36 dosimeters themselves looking at the sky. They didn't find anything, but I'm not sure they --  
 37 believe this happened when Davis-Besse wasn't actually running, and it doesn't address the  
 38 fact that there may have been emissions in the past, and there could be emissions in the future.  
 39 So, I think that any federal environmental impact statement would have to look at known  
 40 emissions from Davis-Besse which are routine, such as I have, and correlate those with the  
 41 cancer cluster in these local counties and look for cancers that are specifically known to  
 42 correlate with the nucleates that we know of at least, such as thyroid cancer. I know I only have  
 43 about five minutes here. I want to say that I know -- as an environmentalist, I know that the

1 NRC is given an impossible task here. Any process that generates radioactive pollution that will  
2 be able to cause cancer, birth defects and hurt people for the next - - for millions of years in  
3 some cases, by definition, it can't be done safely.

4 **Comment: 26-5-HH;** And in fact there is a cancer cluster near Clyde, Ohio which is about 15 to  
5 18 miles as the crow flies from Davis-Besse. So, the comment that I have on Scoping is that I  
6 am requesting that baseline epidemiological studies be done. And that we explore what is  
7 coming out of that nuclear power plant. They are allowed by licensing to release gaseous, liquid  
8 from the plant. Below "permissible" levels. But there are cancers over in Clyde, and families  
9 are decimated. And I would request that baseline epidemiological studies be done in the entire  
10 region.

11 **Comment: 28-1-HH;** I would go farther than to say the Nuclear Regulatory Commission is a  
12 "rogue" organization. I would call it a "terrorist" organization. And I would say that the cancer  
13 that people are suffering from in Clyde, Ohio, I know that Lucas County, when I left 10 years  
14 ago had the highest cancer rates of the State of Ohio. We're all facing cancer as our future.  
15 And this cancer, I would say is on the most part, is on the hands of...It's a legacy of industrial  
16 capitalism, but this cancer is on the Nuclear Regulatory Commission's hands because they  
17 have done nothing to police or regulate or control this industry. It's disgusting, it makes me sick  
18 to my stomach.

19 **Comment: 28-2-HH;** I was listening to public radio the other day and they were talking about  
20 how they felt like "the Rust Belt" was kind of offensive terminology to use for this area of the  
21 country. And the thought crossed my mind well why not "The Cancer Belt" instead? Because  
22 that's the number one killer in this area. So, if the "rust belt" is too niccy-nice. You know, they  
23 want to consider it the "water belt" but the "water belt" is contaminated.

24 **Comment: 14-19-HH;** Something else I just wanted to mention that Tony Mangano, Anthony  
25 Mangno has pointed out that thyroid cancers in Ottawa County, right around the plant, went  
26 from below the national average before the plant started operating to above the national  
27 average now. And, in fact, research says that cancer rates, thyroid cancer rates particularly,  
28 just about double when you put a nuclear power plant in. So, iodine, radioactive iodine is very  
29 rare. Thyroid cancer is very rare. Pretty much you can count on the fact that those people who  
30 are dying from thyroid cancer are dying because of radioactive releases from the plant.  
31 Radioactive releases that are casual, that are average, that are "normal," part of their normal  
32 operations. So, people are dying. They're in the hundreds now. If we keep doing this plant and  
33 radioactive thyroid. Iodine, radioactive isotopes of Iodine stay radioactive for 20 million years.  
34 So the more we generate the more we'll be. People will die from the cancers caused by this  
35 radioactive Iodine. They're in the hundreds now. Another 20 years they'll be in the thousands.  
36 So what we are trying to do here is prevent thousands of people from being killed by an  
37 unnecessary form of energy. We've heard testimony here today about just exactly why that's so  
38 unnecessary.

39 **Comment: 43-3-HH;** Yeah I want to make a statement on behalf of kids whose environment is  
40 being destroyed. There used to be a lot more nature to go to and tromp around in and now kids  
41 don't have that we have urban environments that are polluted kids getting cancer because of  
42 this kind of stuff and it's really not ok. So this is Connie Gadwell Newton urging you to not  
43 renew the licensing for Davis-Besse. Thank you.

44 **Response:** *The NRC's primary mission is to protect the public health and safety and the*  
45 *environment from the effects of radiation from nuclear reactors, materials, and waste facilities.*  
46 *The NRC's regulatory limits for radiological protection are set to protect workers and the public*



from the harmful health effects (i.e., cancer and other biological impacts) of radiation on humans. Radiation standards reflect extensive scientific study by national and international organizations. The NRC actively participates and monitors the work of these organizations to keep current on the latest trends in radiation protection.

Recently, the NRC asked the National Academy of Sciences (NAS) to perform a state-of-the-art study on cancer risk for populations surrounding nuclear power facilities. The NAS study will update the 1990 U.S. National Institutes of Health—NCI report, “Cancer in Populations Living near Nuclear Facilities.”

The study will be carried out in two consecutive phases. A Phase 1 scoping study will identify scientifically sound approaches for carrying out an epidemiological study of cancer risks. This scoping study began on September 1, 2010, and will last for 15 months. The result of this Phase 1 study will be used to inform the design of the cancer risk assessment, which will be carried out in a future Phase 2 study.

The Sandusky County Health Department (SCHD) and the Ohio Department of Health (ODH) conducted a study of childhood cancer incidence, from the years 1996 through 2006, in the city of Clyde and Green Creek Township, both located within 50 miles of Davis-Besse. The study’s objective was to identify factors that may have contributed to the higher-than-expected childhood cancer rates found in that area. The families of 21 childhood cancer patients participated in the study, responding to questionnaires administered by SCHD staff. The questionnaires addressed a variety of topics, including possible exposure to ionizing radiation. The report concluded that there were no exposures or variables that were common to the 21 children with cancer who participated in this profile. The report can be viewed online at: <http://www.sanduskycohd.org/Template/Childhood%20Cancer%20in%20Eastern%20Sandusky%20County%20a%20Profile%205%2026%2011.pdf>

Although radiation may cause cancers at high doses, currently there are no data to unequivocally establish the occurrence of cancer following exposure to low doses, below about 10 rem (0.1 Sv). However, radiation protection experts conservatively assume that any amount of radiation may pose some risk of causing cancer or a severe hereditary effect and that the risk is higher for larger radiation exposures. Therefore, a linear, no-threshold dose response relationship is used to describe the relationship between radiation dose and detriments such as cancer induction; simply stated, any increase in dose, no matter how small, is assumed to result in an incremental increase in health risk. This theory is accepted by the NRC as a conservative model for estimating health risks from radiation exposure, recognizing that the model probably over-estimates those risks. Based on this theory, the NRC conservatively establishes limits for radioactive effluents and radiation exposures for workers and members of the public. While the public dose limit is 100 mrem (1 mSv) for all facilities licensed by the NRC (10 CFR Part 20), the NRC has imposed additional constraints on nuclear power reactors. Each nuclear power reactor, including Davis Besse, has license conditions that limit the total annual whole body dose to a member of the public outside the facility to 25 mrem (0.25 mSv). In addition, there are license conditions to limit the dose to a member of the public from radioactive material in gaseous effluents to an annual dose of 15 mrem (0.15 mSv) to any organ; for radioactive liquid effluents, a dose limit of 3 mrem (0.03 mSv) to the whole body, and 10 mrem (0.1 mSv) to any organ.

The amount of radioactive material released from nuclear power facilities is well measured, well monitored, and known to be very small. The doses of radiation that are received by members of the public as a result of exposure to nuclear power facilities are so low (i.e., less than a few

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millirem) that resulting cancers attributed to the radiation have not been observed and would not be expected.

A number of studies have been performed to examine the health effects around nuclear power facilities. The following is a list of some of the studies that have been conducted:

- In 1990, at the request of Congress, the National Cancer Institute (NCI) conducted a study of cancer mortality rates around 52 nuclear power plants and 10 other nuclear facilities. The study covered the period from 1950 through 1984 and evaluated the change in mortality rates before and during facility operations. The study concluded there was no evidence that nuclear facilities may be casually linked to excess deaths from leukemia or from other cancers in populations living nearby.
- Investigators from the University of Pittsburgh found no link between radiation released during the 1979 accident at the Three Mile Island Nuclear Station and cancer deaths among nearby residents. This study followed more than 32,000 people who lived within 5 miles (mi) (8 kilometers (km)) of the facility at the time of the accident.
- In January 2001, the Connecticut Academy of Sciences and Engineering issued a report on a study around the Haddam Neck Nuclear Power Plant in Connecticut and concluded that exposures to radionuclides were so low as to be negligible and found no meaningful associations to the cancers studied.
- In 2001, the American Cancer Society concluded that, although reports about cancer clusters in some communities have raised public concern, studies show that clusters do not occur more often near nuclear plants than they do by chance elsewhere in the population. Likewise, there is no evidence linking the isotope strontium-90 with increases in breast cancer, prostate cancer, or childhood cancer rates.
- In 2001, the Florida Bureau of Environmental Epidemiology reviewed claims that there are striking increases in cancer rates in southeastern Florida counties caused by increased radiation exposures from nuclear power plants. However, using the same data to reconstruct the calculations on which the claims were based, Florida officials did not identify unusually high rates of cancers in these counties compared with the rest of the state of Florida and the nation.
- In 2000, the Illinois Public Health Department compared childhood cancer statistics for counties with nuclear power plants to similar counties without nuclear plants and found no statistically-significant difference.

In summary, there are no studies to date that are accepted by the nation's leading scientific authorities that indicate a causative relationship between radiation dose from nuclear power facilities and cancer in the general public. The amount of radioactive material released from nuclear power facilities is well measured, well monitored, and known to be very small.

These comments provided no new and significant information. Therefore, no changes have been made to the SEIS.

**Comment: 20-4-HH;** So tritium is an isotope of hydrogen, it's hydrogen-3, which means one proton and two neutrons, and, it is not naturally occurring and has a half-life of 12.3 years. so it is produced in all nuclear reactors by a neutron bombardment either of lithium-6, or boron-10. And, some of you may remember boron is the acid, well, there's boron in the cooling water that is in the pressure vessel, and it was that leaking of boric acid, that was responsible for going through 6 inches of carbon steel in the reactor head. So, the presence of that boron is, under

neutron, impact, can produce the, tritium. It's radioactive, it decays, in 12.3 years half-life, and it emits a high-energy electron which is, known as a beta particle, and, and there's another particle which is an anti-neutrino, which almost interacts, so, so, so little that, neutrinos can, pass completely through the earth. So we don't worry about the neutrinos or the anti-neutrinos, but the beta particle is 5.7 kilo, uh...KEV, kilo electron volts, and, this also has a fairly, fairly low penetration. It, it barely gets into your skin, it stops almost with the dead layers of the skin. However, if you ingest it, or you breath it, then it's very dangerous because it, it has a very short, penetration distance in your lungs or, or in your intestinal tract. So, bec...it's likely to be ingested either as water vapor, as, hydrogen, actually it would be an analog...isotope, one atom of hydrogen, one atom of normal hydrogen, one atom of tritium, or it, it forms, H<sub>2</sub>O, water, as, hydrogen, one atom of tritium, or it, it forms, H<sub>2</sub>O, water, as most likely a normal hydrogen isotope and a tritium isotope together with oxygen, so you will ingest it if you drink water from one of these contaminated wells. So, just a couple of things to remind us of the danger of, of these reactors. Even if there is not a catastrophic meltdown, there are ever-present dangers in these, in the operation of these nuclear reactors.

**Comment: 26-7-HH;** In addition, it was mentioned earlier that there were Tritium leaks in 2009. There was also a Tritium leak in 2008. The grounds are contaminated. I'm concerned about the buried piping at the Davis-Besse plant, about the leaking of Tritium, about the potential of flooding externally, the potential of flooding internally at the Davis-Besse plant. This is an aging plant. And with that Tritium leak and as you run a nuclear power plant into the ground, which is being proposed, another 20 years there are going to be increasing leaks, increasing contamination.

**Response:** *These comments are concerned with tritium in the groundwater. NRC regulations require licensees to control and limit radioactive releases, including tritium, to the environment (the air and water). As part of the NRC requirements for operating a nuclear power facility, licensees must comply with radiation dose limits for the public in 10 CFR Part 20 and keep releases of radioactive material into the environment during normal operations as low as is reasonably achievable (ALARA), in accordance with 10 CFR 50.36a..*

*Information on FENOC's groundwater monitoring program is contained in Chapters 2 and 4 of this draft SEIS.*

*No new and significant information is provided in these comments. Therefore, no changes have been made to the SEIS because of these comments.*

**Comment: 22-4-HH;** In addition, the amount of toxic algae has increased over the last, 10 to 15 years, so much that the Ohio EPA reports that physical contact with the toxic algae in Lake Erie probably causes illnesses, probably caused illnesses to 10 people in the summer of 2010.

**Comment: 29-3-HH;** It's not a question! I just want the panel to know that inadvertently when people start dying or getting sick because the levels occur. Is there any way that they could possibly be held responsible or get sued?

**Response:** *These comments express concerns relating to the nuisance organisms in Lake Erie as they apply to Human Health. *Lyngbya wollei* and *Microcystis aeruginosa* are two different species of cyanobacteria. Both currently exist in Lake Erie and have become a nuisance in the Maumee Bay area. When conditions are present to facilitate a rapid growth, a dense population forms, known as a bloom. Some Blooms are harmless; however, when these organisms contain toxins, other noxious chemicals, or pathogens, it is referred to as harmful algal blooms*

(HAB). HABs may cause health concerns dependant on the method an individual comes in contact with the toxin produced.

Thermal pollution has been referenced as a contributor to the growth of HABs. Davis-Besse's thermal effluent is warmer than the receiving waters. HABs, however, require calm, low-flow water conditions in order to facilitate their growth. The Davis-Besse outflow is equipped with a high-velocity discharge nozzle. The high-velocity discharge nozzle, as part of the NPDES permit, is intended to enhance the rapid mixing and heat dissipation of the heated effluent at the outfall. As referenced in 2.2.6, Aquatic Resources, of this SEIS, the regulation of surface waters is within the regulatory authority of the Ohio EPA. In addition, the thermal discharges, regulated by the NPDES permit, are also under the authority of the Ohio EPA.

NRC staff did not discover any studies linking Davis-Besse as a direct contributor to the formation of HABs. The health impacts associated with HABs and the impairment of Lake Erie are discussed in the "Cumulative Health Impacts," section of Chapter 4.

#### A.1.6 Hydrology (HY)

**Comment: 20-3-HY;** This is a study by Davis-Besse. In Appendix E, that's the Environmental Report, on this page (Page 2.3-2), I quote here, they're, they're required, by their operating license to have monitoring wells to monitor the quality of the groundwater in the, within the perimeter. And one of their wells in 2..., in the spring of 2009 showed a tritium level that was rising, 4000, pico curies/liter. And, this is a quote from their study. "As a result, the First Energy Nuclear Operating, Company," notice that's a separate operating company from First Energy, from the rest of First Energy, "is pursuing a root cause approach to identify the source of the tritium in the wells. No tritium concentrations of...have been detected above the, US EPA drinking water limit of 20,000 picocuries." But, this to me is very troubling. Even though the, the, concentration is not that high yet, but is an increasing amount, the question is where does it come from?

**Response:** The comment expresses concern relating to the source of the tritium noted in FENOC's ER.

The NRC staff describes the groundwater resources at Davis-Besse and the effects of plant operations on groundwater hydrology and quality in Chapters 2 and 4 of this SEIS. Chapter 2 summarizes the results of NRC's review of Davis-Besse's Groundwater Protection Program, including the placement of site groundwater monitoring wells. As part of this evaluation, the NRC staff specifically reviewed the conceptual groundwater model prepared for Davis-Besse in 2007 and 2008. All studies reviewed by the NRC staff are cited in Chapter 2 of this SEIS, including analysis of tritium information.

No new and significant information is provided in this comment. Therefore, no changes have been made to the SEIS because of this comment.

**Comment: 26-6-HY;** Earlier again, this week, I got several documents from Connie Klein who was one of the interveners at Davis-Besse on the first Operating. And she shared with me photos of the flooding of the Davis-Besse in 1972. This was during construction. The entire site was flooded for two to three weeks. Um I have concerns about the Davis-Besse flooding. As you all know Lake Erie is very shallow. The western basin is very very shallow, and it is subject to something called a seiches where the wind blows out the water, blows it east. Then the water comes back, like a bathtub, and floods the western shore. I'm concerned about the potential flooding of that Davis-Besse Plant.

**Response:** This comment expresses concern regarding the potential of flooding at Davis-Besse. As part of the initial design of Davis-Besse, consideration for flooding was required to ensure the safety of structures and continued operation of the plant. The plants design basis included the determination of the probable maximum surge flood level and is documented in the final safety analysis report (FSAR).

The static water levels in the western basin of Lake Erie are subject to long term, annual cyclical variation, and short period variations. These variations are due to wind tides and seiches. Seiches are a movement on the surface of an enclosed body of water, in this case Lake Erie, usually caused by intense storm activity.

The short period variations in the daily level from the monthly mean level are due to both a lengthwise wind tide which produces the greatest disturbance of water level and a transverse seiche in the west end of Lake Erie which can oscillate between the northern and southern shores. A traverse seiche of 0.8 ft has been recorded but for design purposes, 1.0 ft has been used in the design considerations.

Based on collected and available data since 1860, the maximum variations in the mean monthly water level are 4.2 feet above datum and 1.2 feet below datum. Not included in this range were two occurrences in 1973 and 1974, when an all-time high lake level was recorded at 4.9 ft above datum. Davis-Besse, in its design considerations, used a probable maximum variation of 4.8 feet above and 1.5 feet below datum. Although 4.8 ft is less than the recorded 4.9 ft, the 0.1 ft difference is accounted by the rounding up of the daily level variation from 0.8 ft to 1.0 ft.

A probable maximum meteorological event was used to determine the maximum rise in lake level due to wind tides. This meteorological event would have a maximum ENE wind at anyone location of 100 miles per hour for a 10-minute period, and the wind speed could exceed 70 miles per hour during the six-hour period both before and after the maximum wind speed. The force or push of the wind driving the water level up, resulted in a maximum wind tide rise of 9.3 ft.

The probable maximum surge flood level that could occur at Davis-Besse would be a combination of all these occurrences, for both the cumulative high and the cumulative low. For flooding concerns, the design would relate to the cumulative high. Thus, the 4.8 high monthly mean, 1.0 ft seiche, and the 9.3 ft wind tide would result in a 15.1 ft rise in low water datum to reach a static high elevation of 583.7 ft. Davis-Besse has a finished floor elevation set above the static high and is further protected by an earthfill breakwall built up to an elevation of 591.0 ft to further protect the site from potential wave action.

As a result of the 2011 earthquake and tsunami that struck Japan, resulting in extensive damage to the nuclear power reactors at the Fukushima Dai-ichi facility, the NRC has taken significant action to enhance the safety of reactors in the United States. Operating nuclear reactors were directed to use present-day information to reevaluate the flooding hazards that could impact their site and to submit their reevaluations to the NRC for evaluation in a Hazard Reevaluation Report. Information on the NRC's actions relating to Fukushima Dai-ichi accident can be found at: <http://www.nrc.gov/reactors/operating/ops-experience/japan-dashboard.html>.

#### **A.1.7 License Renewal and its Process (LR)**

**Comment: 14-1-LR;** Good evening. Like most people in the Northwest Ohio area, I first found out about the scoping meeting earlier in the week when there was a story in the Blade. So, I had not had an opportunity to completely read the Environmental Impact Statement that's been

1 prepared with the application for the license renewal. But, I think that is one of the issues that  
2 should be dealt with in the scoping process at either another later meeting or perhaps further  
3 announcements, and at the very least, I would like to request a hard copy also be placed in the  
4 Wood County Library in Bowling Green, Ohio.

5 **Comment: 16-1-LR;** My name is Patricia Marida. I'm the Chair of the Nuclear Issues  
6 Committee of the Ohio Sierra Club. And, we had a whopping four days to know about this  
7 meeting. I had four days ahead. I learned about it this morning and have come up from  
8 Columbus here.

9 **Comment: 14-15-LR;** And though...I felt at the time, those people should be at this hearing,  
10 but most people didn't even know it happened. It went by before people could get their thoughts  
11 together. And so we asked the NRC to hold another one here in Toledo, they refused, but we  
12 have decided to hold our own and that's what this is...that's what this is about.

13 **Comment: 16-23-LR;** First let me say that the Sierra Club is disappointed that the NRC only  
14 gave 10 days notice of these scoping meetings in the *Federal Register*, and that the public only  
15 had 3 days notice from an article in *The Toledo Blade*. The Davis-Besse Environmental Report  
16 and License Renewal Application were almost 2000 pages, not including the NRC Generic  
17 Environmental Impact Statement for Nuclear License Renewal. Therefore, we would like to  
18 request that the NRC hold at least one additional scoping meeting, and that this be held in  
19 Toledo, close to the population center with residents who are informed by *The Blade*. Also,  
20 setting the comment deadline during the holiday season makes it difficult for people to have  
21 time to digest the material and comment. Therefore, we would also like to request an extension  
22 of the comment period, preferably until the end of January.

23 **Comment: 44-1-LR;** I would be very interested in a scoping meeting taking place in Toledo,  
24 Ohio where more people would be able to attend. I also think more time should be allotted for  
25 the comment period as December 27, 2010 falls in the middle of the holiday period. Perhaps an  
26 additional 30 day period would be appropriate.

27 **Comment: 49-1-LR;** The people of Northwest Ohio, Southeast Michigan, and other  
28 communities that would be the most adversely affected by an accident at Davis-Besse deserve  
29 a longer comment period and more hearings before the NRC automatically approves First  
30 Energy's request to re-license. Please attend our hearing, as outlined below. PUBLIC  
31 HEARING on re-licensing of the Davis-Besse Atomic Reactor Saturday Dec. 18 from 12 noon to  
32 3 pm St. Mark's Episcopal Church 2272 Collingwood Blvd Toledo, Ohio 20 MORE Years of  
33 Radioactive Russian Roulette on the Great Lakes shore?! We are calling for input from all  
34 interested parties regarding First Energy's mismanagement of Davis-Besse, and the Nuclear  
35 Regulatory Commission's lack of oversight of that facility, in particular residents of Ohio, the  
36 Toledo area, South East Michigan, or residents of any community that would be directly  
37 adversely effected by an accident at Davis-Besse. Anyone can testify, sign in will be required.  
38 This hearing will be videotaped and presented to the NRC. FirstEnergy has applied to the U.S.  
39 Nuclear Regulatory Commission (NRC) for a 20-year operating license extension at its  
40 Davis-Besse nuclear power plant near Oak Harbor, Ohio, just over 20 miles east of Toledo.  
41 Davis-Besse is one of the most problem-plagued atomic reactors in the entire country: it has  
42 suffered six "significant accident sequence precursors," three times more than any other  
43 American nuclear plant. The original license was granted in 1977 and will expire in 2017. If the  
44 extension is approved Davis-Besse can operate until 2037. In the past 10 years NRC has  
45 rubber-stamped 60 or 60 license renewals sought by industry. The NRC Office of Inspector  
46 General has reported serious problems with NRC's license extension program: NRC staff have

“cut and pasted” the nuclear utility’s own work, sometimes word for word, falsely presenting it as an independent safety

**Comment: 14-13-LR;** So, I’d like to welcome you all. My name is Joe DeMare and I spoke at the official NRC hearing on November 4. And I have to tell you, it was a, a rather disappointing experience, because almost everyone there was either employed by Davis-Besse or they were from an organization that received money from Davis-Besse.

**Response:** *The environmental scoping period is an opportunity for the public, tribal governments, and local, state and Federal government entities to assist the NRC in identifying areas of concern, impacts, and alternatives as staff develops the SEIS for license renewal. The NRC announced the start of the scoping period by use of a Federal Register Notice, published on October 28, 2010. The 60-day review period for the environmental scoping period ended on December 27, 2010.*

*The purpose of the environmental scoping meeting was to provide a brief summary of the license renewal and scoping process and to allow the public an opportunity to provide comments. Although the NRC emphasizes the purpose for the solicitation of comments, it does not restrict the topic of those comments to those applicable to license renewal. As a result, the public, in some instances, takes this opportunity to voice their opinion in support or against the approval or denial of the renewed license.*

*The environmental scoping meeting was one method for providing scoping comments. Comments were also sent to the NRC in response to this draft SEIS by the following methods:*

- *Comments were submitted electronically via the Federal rulemaking Web site: <http://www.regulations.gov> and search for documents filed under Docket ID NRC-2010-0298.*
- *Comments were mailed to: Chief, Rulemaking and Directives Branch (RADB), Division of Administrative Services, Office of Administration, Mail Stop: TWB-05-B01M, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001. Comments were faxed to RADB at (301) 492-3446.*

*Additional details relating to the license renewal can be found in Chapter 1 of this draft SEIS or at <http://www.nrc.gov/reading-rm/doc-collections/nuregs/brochures/br0291/br0291-r2.pdf>.*

**Comment: 18-3-LR;** Now we’re looking at what the NRC is doing in, in its laughable oversight of all the nuclear power plants but Davis-Besse in particular. And it occurs to me that, that...the NRC is a rogue agency and just as the, as the, SEC failed us, failed us, the citizens that it should be, watching out for, that is our goals, that is our tool, that is the thing that, the entity that we have put in place through our government to make sure that everybody plays by the rules. And that is what the, Nuclear Regulatory Commission is as well. However, it is failing to do that, it has, it has absolutely failed to do that. And what it has done in reference to Davis-Besse and the numerous problems that we have seen is, at Davis-Besse, demonstrates that very clearly.

**Comment: 25-2-LR;** We need to broaden the idea of what environmental consequences, environmental impact means when it comes to nuclear power and something like Davis-Besse, and other people who have spoken here today have done a better job at talking about what specifically, The common definition of what environmental impacts might be. But I’d like to say something about the political environment that is affected by the operation of nuclear power plants and Davis-Besse relicensing, the potential licensure of a plant down in Piketon a new

power plant that our Democratic Governor invited in to this situation that Kucinich will probably go right along with and that is the credibility and the competency of something called the Nuclear Regulatory Commission. Already while the residents of this area would be most directly affected by the power plant, Cleveland is not that far away and the NRC should have solicited input from people from a broader radius around the power plant including Michigan and Indiana. Because what we've found from the Chernobyl accident is that radioactive waste doesn't stop at municipal boundaries or national boundaries. And the environmental impact is much broader than how some fish that get caught in an intake pipe or the other kind of more immediate sort of environmental impacts that people might think of. The fact that the NRC didn't hold multiple hearings on this is a problem, but they shouldn't and I'm speaking directly to the NRC at this point. The NRC shouldn't take as the expression of the people of Ohio the testimony of just those people who attended the hearing on November 6th or 4th or whenever it was right after election day. That the people are economically benefitting from the conduct of FirstEnergy by the operation of that power plant whether it's through their jobs or through charitable contributions, that is not a legitimate expression. We have a political problem in this country of disengagement and alienation and generally, the government and its regulatory bodies are treated with contempt by the mass media. And a culture of contempt is built among the people for our government and for the mechanisms that we as people use collectively to monitor things like the banking industry or the nuclear industry. It's not to our benefit that that is happening, but it is. So that small group of people who testified in favor of this relicensing is not a complete or an inclusive representation of the people that are concerned with this. And I would suggest that most of the people that are concerned with this are disengaged and are not paying attention. And the credibility of the NRC is at stake.

**Comment: 26-4-LR;** So the lesson I take out of this was I learned that the NRC is incapable of learning lessons. As mentioned earlier, they are indeed a rogue agency. This past week, the 61st nuclear power plant that had applied for relicensing was relicensed. They are now batting 1000%. 1000, Batting 1000. 61 for 61 on relicensing applications. So, the NRC has not a shred of credibility with the public, and they are there, running interference, keeping the people away from confronting these utilities when they run these abysmal plants.

**Comment: 28-3-LR;** I don't have any faith in the Nuclear Regulatory Commission to do anything about the issue, but, thanks. That's all I have to say.

**Comment: 26-10-LR;** So, I do not have confidence in the NRC to force about proper equipment, maintenance. Perpetually, there are exemptions that are requested and just as a matter of rubberstamping - - the Nuclear Regulatory Commission, the Nuclear Rubberstamp Commission, allows them exemption time after time. Again. Production over safety. Profit over people.

**Response:** *These comments express a lack of confidence relating to NRC's oversight and regulation. To ensure that U.S. nuclear power plants are operated safely, the NRC licenses the plants, licenses the plant operators, and establishes license conditions for the safe operation of each plant.*

*In addition, the safe operation of nuclear power plants is not limited to license renewal but is and will be dealt with on a daily basis as a part of the current operating license. The NRC, on an ongoing basis, at every nuclear power plant, addresses safety issues and concerns. The NRC conducts safety inspections throughout the operating life of the plant, whether during the original or renewed operating license. If the NRC discovers safety issues at a nuclear power plant, they*



are addressed immediately, and any necessary changes are incorporated under the current operating license. As such, the regulatory safety oversight of Davis-Besse is ongoing.

**Comment: 18-4-LR;** This is the beginning. Certainly, we don't have enough people in this room. We never do when we try to do something like this. We fit it in between all of the things that we do as, as mothers, as fathers, as, as parts of families, as parts of communities, we fit it in with our jobs, and we are determined to make a change. So as we approach that process here, in, in making comments, that the Nuclear Regulatory Commission will do their utmost to ignore, as, as we approach this process, we have to understand that this is the beginning of the process. This is the beginning of the process of us as citizens, and I believe that "We the People" is one of the most powerful statements that anybody can make. And "We the People" embodies our democracy, so "We the People" will be the ones who will have to challenge not only Davis-Besse but the NRC.

**Comment: 23-1-LR;** Hi folks. Um I prepared written comments for the NRC. I'm really pleading with you all because I'm not sure they'll listen or read them.

**Response:** *These comments express a lack of confidence over the NRC's ability to address and incorporate scoping comments. To further enhance the development of the SEIS, public participation is solicited as part of the license renewal scoping process. NRC held two public meetings on November 4, 2010, to solicit comments from the public.*

*Two additional meetings, not sponsored by the NRC, were also conducted to obtain comments from the public. The People's Hearing, held by the Green Party of Ohio, represented by Anita Rios and Joseph DeMare, was held on December 17, 2010. The Sierra Club, represented by Patricia Marida, also held a separate meeting on December 11, 2010. Prior to the Davis-Besse scoping period, scoping comments in video format had never been submitted. The Peoples Hearing provided a transcript of the meeting, in addition to the video submission, to ensure the accurate capture of their comments. The NRC, to provide complete representation of the comments, developed an unofficial transcript of the Sierra Club meeting. Comments are both welcomed and encouraged as part of the Draft SEIS comment period for incorporation into the final SEIS.*

*The NRC makes a conscious effort to address public concerns provided in the scoping comments. The NRC acknowledges there is public dissatisfaction when comments, are categorized as out of scope. The Scoping Summary Report and Appendix A of this SEIS, however, has included expansive responses. Where the comments were deemed in scope, a summarized response is provided and the reader is directed to the appropriate section within the SEIS to gain additional details. Where the comments are categorized as out of scope, staff responded to the comments and redirected the reader to where the comments are addressed.*

**Comment: 26-2-LR;** We've heard that there are several alternatives to Davis-Besse. Replacement power is available now. Could be generated much cheaper. It is about the consecration of wealth and a cartel of the utilities that like the monopoly status that they enjoy, and they are locking out the people. It is not power, not energy for the people. It is power and political power against the people.

**Comment: 16-25-LR;** The environmental effects that occur in other parts of the United States should come under consideration when the NRC develops the Environmental Impact Statement.

**Response:** *These comments request evaluation of the cumulative effects of license renewal on the United States. The cumulative effects of license renewal are evaluated in this SEIS. A detailed discussion can be found in Chapter 4.*

**Comment: 16-32-LR;** Even the 40-year time frame for operation of a power plant does not have an engineering basis, but was based on the time needed to pay off construction bonds. What happened to the engineering responsibility to oversee and advise an operation of this magnitude of danger?

**Response:** *The Atomic Energy Act provides the NRC with the regulatory authority for to issue licenses for commercial power reactors to operate for up to 40 years and allows these licenses to be renewed for another 20 years. A 40-year license term was selected based on economic and antitrust considerations -- not technical limitations. The NRC has established a license renewal with clear requirements to assure safe plant operation for an additional 20 years of plant life.*

*The license renewal rule, 10 CFR Part 54, establishes the technical and administrative requirements for renewing a reactor operating license. Part 54 focuses the staff's review on managing the adverse effects of aging to ensure that important systems, structures and components will continue to perform their intended function during the 20-year period of extended operation. An applicant must provide the NRC with an evaluation that addresses the technical aspects of plant aging and describes the ways those effects will be managed. The NRC reviews the application and documents the conclusions in the safety evaluations.*

*The applicant must also prepare an evaluation of the potential impact on the environment if the plant operates for another 20 years. The NRC performs plant-specific reviews of the environmental impacts of license renewal in conformance with the National Environmental Policy Act and the requirements of 10 CFR Part 51. To facilitate the environmental review for license renewal, certain issues were evaluated generically for all plants rather than separately in each plant's renewal application. The generic evaluation, NUREG-1437, Generic Environmental Impact Statement for License Renewal of Nuclear Plants, (GEIS) assesses the scope and impact of environmental effects that would be associated with license renewal at any nuclear power plant site. A plant-specific supplement to the GEIS, commonly referred to as the SEIS, is prepared for each licensee that applies for license renewal.*

*Before a new license is issued, the NRC will ensure that there is a technically credible and legally sufficient basis for granting a renewed license for an extended 20 years as reflected in the NRC's safety evaluation report, final environmental impact statement supplement, and the proposed renewed license.*

#### **A.1.8 Opposition to License Renewal (OL)**

**Comment: 7-1-OL;** FirstEnergy should not be allowed to continue to operate Davis-Besse after 2017.

**Comment: 14-12-OL;** In this specific case, Davis-Besse has one of the worst operating records in the industry. That's widely known. This will actually be a very interesting test case to see if the NRC is able to deny any license. I think if any license should be denied, it would be Davis-Besse.

**Comment: 16-2-OL;** The Sierra Club opposes nuclear energy in its entirety, citing serious environmental health and public expense issues throughout the nuclear fuel cycle.

**Comment: 14-14-OL;** And I know that there are many people, thousands of people, in the Northwest Ohio area, that don't want this license renewed and think it's an insane gamble with our health and safety to run this plant for another 20 years.

**Comment: 14-16-OL;** So, we have a lot of very educated, very well-informed speakers. And we have people that are just plain citizens that, but I think most of the people that we've scheduled to speak...feel that Davis-Besse should not be renewed. We have opened this up to the public and if anyone here wants to, to speak that hasn't been asked to already, you just need to sign up, there's a little sheet outside, I'll ask you to sign.

**Comment: 18-1-OL;** And Davis-Besse is about 20 miles from here. And, I have been opposed to nuclear power for a very long time. But as I was thinking about, what we are doing here today and, what I wanted to talk about today, it kept, coming back to me that I think that even if I was in favor of nuclear power, this is still a nuclear power plant that I would want shut down.

**Comment: 18-7-OL;** And in the face of that, in the face of that lack of responsibility and lack of planning for the future, the NRC has continued to do nothing. They just slapped them on the wrist for that, they slapped them on the wrist, they fined them. But if you look at, FirstEnergy's profits, they have gone up, they have, they have never gone down, they never had to really pay for, for what they did here at Davis-Besse. They have shown, a complete lack of responsibility to the people they serve. And the NRC has failed to hold them accountable.

**Comment: 18-8-OL;** Now the other thing about FirstEnergy is, First Energy holds a corporate charter from here in Ohio. And I think that one of the next steps that, that we should be pushing towards is to revoke that corporate charter for FirstEnergy. They are, they are a rogue corporation. They have failed to, to provide oversight of their own facilities, and they have failed to, show any real determination to actually learn from that situation that transpired back when the, Davis-Besse almost, melted down actually. So I hope that these proceedings are the first step towards preventing, a nuclear meltdown. In the face of the failure of First Energy to be vigilant and maintain its, its facilities appropriately, and in the face of, of the failure of the Nuclear Regulatory Commission to provide adequate oversight, and I would invite each of you to be a part of that next step because certainly we must grow this movement if we are to be effective. Thank you.

**Comment: 19-8-OL;** And there's ongoing problems with Davis-Besse, to the present day. I'd like to just share some figures for, what might happen if there were a major radioactivity release at Davis-Besse. This comes from a 1982 NRC report entitled "Calculation of Reactor Accident Consequences," or CRAC, which is a nice little acronym the NRC came up with. So, if there were a major radioactivity release from Davis-Besse, the NRC and the Sandia National Lab in New Mexico, which conducted the study, determined that there could be 1,400 peak early fatalities, they call them, 1,400 peak early fatalities, 73,000 peak early injuries, and 10,000 peak cancer deaths. And they attributed a dollar figure of 84 billion dollars for property damage. So, that study came out in 1982. NRC tried to cover it up. Congressman Ed Markey of Massachusetts, got it ousted by subpoena by holding a hearing and out came the figures. So if you increase, all those casualties due to the increase in population since 1982, if you, increase, due to inflation the, property value damages, that would go up to \$185 billion dollars. And a little update to mention, just came out in, mid-September, "Inside the EPA," which is a trade press, publication in Washington, DC, scooped the story that they did a freedom of information act release to the NRC, the EPA, and the Federal Emergency Management Agency, and discovered, internal e-mails between the agencies, the lawyers of the agencies, fighting with each other over a little minor detail of after a major radioactivity release who would, be in charge

1 of the clean-up and how would it be paid for. So it turns out that the lawyers at these 3  
2 agencies, were discussing how Price-Anderson, the national liability, coverage for major nuclear  
3 power plant accidents, will not cover the cleanup costs. It would cover other things, property  
4 damage and, and some very strictly controlled categories, but not clean up costs. So, that's a  
5 little issue.

6 **Comment: 19-9-OL;** Davis-Besse, which is deteriorated with age, has already had so many  
7 close calls, 2 major accidents. So, you can see things are pretty out of control. Anita  
8 mentioned the, NRC as a rogue agency. And we keep trying to figure out what the NRC stands  
9 for. Is it Nobody Really Cares? Is it Nuclear Rubberstamp Commission? it might be Nuclear  
10 Rubberstamp Commission, because of, the 60 license extension applications they've  
11 considered so far, they have rubberstamped every single one of them. And, these are oldest  
12 reactors in the country with major problems.

13 **Comment: 14-17-OL;** OK, so while Al's setting up, I just want to mention that, technically what  
14 these comments are going to be is part of the Environmental scoping comments for the  
15 Environmental Impact Statement, which is part of the application for the 20-year renewal. So  
16 part of that process is that if we could show that there are cheaper, safer, more environmentally  
17 friendly alternatives to doing nuclear power, to renewing this license for another 20 years,  
18 technically the NRC is supposed to say "OK, you're right, nuclear power isn't that, we won't  
19 extend this, licensing application."

20 **Comment: 22-1-OL;** Water is the foundation of life. And it's our most precious resource in  
21 Ohio. Nuclear energy is not needed for life here in northwest, Ohio.

22 **Comment: 22-7-OL;** Davis-Besse should not be re-licensed. The other question that has to be  
23 considered - is the safety culture within Davis-Besse changed? And if one were to assess the  
24 safety culture in personnel...Technology doesn't fail on its own, technology fails...People  
25 operate technology.

26 **Comment: 23-2-OL;** So, we urge the Commissioners to deny the 20 year relicensing. If there  
27 ever was a candidate for the first denial of a relicense, this is it. As the history of the facility  
28 proves, it is too dangerous and expensive to continue this operation, especially since it is too  
29 dangerous and expensive to continue this operation, especially since it is not needed for  
30 present or future power generation. I would like to refer the Commissioners to two articles  
31 quoting studies that support this latter statement.

32 **Comment: 23-5-OL;** It's past time to admit that we can no longer afford this complicated and  
33 dangerous technology - - not the feed-in tariff, I'm referring to Davis-Besse.

34 **Comment: 24-3-OL;** As a very senior citizen, I would like to encourage the members of the  
35 audience who are opposing the relicensing of the plant to keep fighting. It can sometimes get  
36 discouraging, but the opposition that was mounted to the original building of nuclear plants in  
37 the 1960s and 70s did result in enough added expense for the electrical industry to put a halt to  
38 the building of new plants, although Davis-Besse was approved.

39 **Comment: 25-1-OL;** Some people may remember me from the early 90s. I know at least  
40 Mike Leonardi was here in the room. There he is! That's when we fought off the whole  
41 proposition to build a low level radioactive waste dump here in Ohio. I'm sorry I wasn't here in  
42 the 70s to resist against the Davis-Besse, but if I lived in Ohio then, I would've.

**Comment: 26-1-OL;** We are blessed in that we live in 20% of the world's surface freshwater here in the Great Lakes the most precious resource on the planet. Without it, life is not possible. And yet we have a nuclear power plant that has an abysmal record, Davis-Besse. But I'm here to tell you that it's not about the generation of energy. It's about the concentration of wealth and power. Political economy.

**Comment: 26-12-OL;** Now we've got to stop the production of this material, and I say do not relicense this and the plant should be shut down immediately.

**Comment: 27-2-OL;** So, I just agree that they should not get relicensing whatsoever. They have done the worst job in managing this plant. They do not follow good engineering principles. They're making the same mistakes all over again. They should be shut down permanently, and they should not be relicensed.

**Comment: 14-18-OL;** We haven't done enough. We haven't killed this monster yet. But, I think I had hopes that it would die a natural death. That as each plant reached the end of its operating license it would simply be pulled off the market for economic reasons. Now they're trying to give us undead nuclear power plants. Nuclear zombie power plants.

**Comment: 14-20-OL;** So, I wanted to thank everyone here for keeping up the fight. And I think Kevin has one more comment about the next step would be after this comment period is over. We'll submit comments. But after this is finished then we're going to have interventions. Once they grant the license. We're expecting they'll grant it. We'll be able to perhaps put in one last line of defense to stop this monster. Let it die a natural death. So, here's Kevin one last time.

**Comment: 31-1-OL;** Hello my name is Suzanne Patser and I live in Columbus Ohio and I'm very concerned about the Davis-Besse plant coming back online. I can't think of anything that would be a worse idea for our state.

**Comment: 31-5-OL;** So I am absolutely 100% against any nuclear plant opening anywhere. It is not the type of energy that our country needs, our State needs, that Toledo needs that anybody needs that lives or works in that area.

**Comment: 33-1-OL;** Hello my name is Scott Robinson from Worthington Ohio and I'm opposed to the relicensing of the Davis-Besse nuclear power plant. Thank you.

**Comment: 34-2-OL;** It puts people in Toledo especially in danger and could possibly extend as far south as Columbus. So I really do not think that this should be renewed.

**Comment: 35-1-OL;** I'm Emily Journey and I'm from Westerville Ohio. I'd like you to know that I do not support the relicensing of the Davis-Besse Atomic reactor.

**Comment: 36-4-OL;** So because of the ongoing contamination and the inherent nature of the radioactive contamination in the process of it being mined and transported. I would like the commission to look very closely at this and do what we all know is correct and keep Davis-Besse closed.

**Comment: 37-1-OL;** Alright. I'm totally against the nuclear power. I just I'm an old guy and I've been around for many years and I know the history damages that it can cause and I'm really opposed to it. That's why I'm on camera here. That's why I'm on camera and I will do whatever I can to support the cause against it. The actions, take actions against it. That what all I got to say. Thank you very much.

## Appendix A

**Comment: 38-2-OL;** By all means please do not approve the relicensure of Davis-Besse.  
Thank you

**Comment: 39-5-OL;** I'm very disconcerted for the future of our children and future generations in terms of the toxicity and global warming. Also we don't need this energy and it is just not a good way for our country to be going. Thank You

**Comment: 40-1-OL;** My name is Bernadine Kent and I'm from Columbus Ohio and I have been informed of the Davis-Besse power plant in Toledo. I'm concerned about this plant extending their license for the next 20 years. To me that doesn't make any sense especially since they have problems.

**Comment: 42-1-OL;** My name is Pete Johnson I'm associated with the Columbus free press and citizens alliance for secure elections and I'm definitely opposed to relicensing Davis-Besse.

**Comment: 43-1-OL;** Basically I mean I've heard a lot of the science about it and I can't really say a whole lot about that. But what I can say is that you it's going to be relicensed supposedly for 20 more years and that would be to 2037, I believe, so I'm opposed to the relicensing of Davis-Besse because I think it's a youth issue and basically this is an important youth issue its important to the young people who are not allowed to vote and be politically active and children and the future generations.

**Comment: 16-14-OL;** Hi my name is Patricia Marida. I'm the chair of the nuclear issues committee at the Ohio Sierra Club. I gave a presentation before the Nuclear Regulatory Commission on November 4, 2010, as to why the Sierra Club opposes the extension of a license at Davis-Besse.

**Comment: 16-15-OL;** Tonight I'm going to give my personal statement. I think that it's well recorded there are 10 pages of documentation of very serious violations and illegalities, and actually nuclear accidents at Davis-Besse. It is the most accident ridden power plant, nuclear power plant in the nation. It is very clear that we have a serious problem here also because the Nuclear Regulatory Commission has been very lax in enforcing Davis-Besse. In fact allowing them to, allowing FirstEnergy and Davis-Besse Operating Company to continue operating the plant when it was supposed to be shut down for an inspection. And the reactor head came within 1/8" or metal left between containment and a nuclear holocaust. So It is very clear that the regulatory and the supervision is lacking were also would like the NRC to be sure to cover the safety issues there, there are many safety issues.

**Comment: 47-1-OL;** First Energy should not be allowed to continue to operate Davis-Besse after 2017. The people of Northeast Ohio are familiar with First Energy's pathetic record in protecting the safety of people who live in the region.

**Comment: 48-1-OL;** We are area residents near the Davis-Besse plant as we live in Wood County. We would like to have this nuclear power plant eliminated. We say the article about it in our local paper, the *Sentinel-Tribune*. It is an old plant and has had a history of accidents/problems.

**Comment: 14-14-OL, 14-16-OL, 14-17-OL, 14-18-OL, 14-20-OL, 16-14-OL, 16-15-OL, 30-1-OL, 34-3-OL, 34-7-OL, 39-6-OL, 39-10-OL, 43-4-OL, 44-2-OL, 50-1-OL, 51-1-OL, 52-1-OL, 53-1-OL, 54-1-OL, 55-1-OL, 56-1-OL, 57-1-OL, 58-1-OL, 59-1-OL, 60-1-OL, 61-1-OL, 62-1-OL, 63-1-OL, 64-1-OL, 65-1-OL, 66-1-OL, 67-1-OL, 68-1-OL, 69-1-OL, 70-1-OL, 71-1-OL, 72-1-OL, 73-1-OL, 74-1-OL, 75-1-OL, 76-1-OL, 77-1-OL, 78-1-OL, 79-1-OL, 80-1-OL, 81-1-OL,**

**81-6-OL, 82-1-OL, 83-1-OL, 84-1-OL, 85-1-OL, 86-1-OL, 87-1-OL, 88-1-OL, 89-1-OL, 90-1-OL;** Ohioans are concerned about the environment, the rising costs of energy, and the dangers associated with nuclear power! However, that has not stopped First Energy from irresponsibly pursuing to get the Davis-Besse nuclear plant on Lake Erie relicensed to continue operation until 2037.

**Comment: 30-5-OL, 43-8-OL, 44-6-OL, 50-5-OL, 51-5-OL, 52-5-OL, 54-5-OL, 55-5-OL, 56-5-OL, 57-5-OL, 58-5-OL, 59-5-OL, 60-5-OL, 61-5-OL, 62-5-OL, 63-5-OL, 64-5-OL, 65-5-OL, 66-5-OL, 67-5-OL, 68-5-OL, 70-5-OL, 71-5-OL, 72-5-OL, 73-5-OL, 76-5-OL, 77-5-OL, 78-5-OL, 79-5-OL, 80-5-OL, 81-10-OL, 82-5-OL, 83-5-OL, 84-5-OL, 85-5-OL, 86-5-OL, 87-5-OL, 88-5-OL, 89-5-OL, 90-5-OL;** Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis-Besse.

**Comment: 53-5-OL;** Until nuclear power can be made safe for the environment by solving the waste problem, I do not want it to continue in operation. Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis-Besse.

**Comment: 69-5-OL;** Now is not the time to expand nuclear energy in Ohio. Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis-Besse.

**Comment: 70-5-OL;** These plants have been a financial leach on the people long enough! Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis-Besse.

**Comment: 74-5-OL;** Davis-Besse is not safe and we seem to want to wait until something really disastrous happens before anything is done—when it is too late! Nuclear energy is NOT clean energy and we have the perpetual problem of what to do with nuclear waste. Dear Nuclear Regulatory Commission, please say NO to Davis Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis Besse.

**Comment: 77-5-OL;** Davis-Bess is far too dangerous. Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis-Besse.

**Comment: 81-5-OL;** We are moving to Westlake, Oh. soon and don't want to have to worry about unsafe Davis-Besse blowing up near us. I have read this petition and agree with it all. Dear Nuclear Regulatory Commission, please say NO to Davis Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis Besse

**Comment: 81-10-OL;** Thank you for your prompt action on this matter for the safety and health of the People of Ohio. I have read this petition and agree with it all!!!! Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis-Besse.

**Response:** *These comments are general in nature and express opposition to FENOC, nuclear power, the license renewal of Davis-Besse, or all of these. The majority of these comments express opposition for reasons outside the scope of license renewal. Expanded responses to these comments are documented in the Davis-Besse Scoping Summary Report. Those comments that express opposition for in-scope reasons are documented in the applicable*

technical area within this appendix. The NRC did not evaluate these comments in the development of the SEIS, as they did not provided any new and significant information.

### A.1.9 Postulated Accidents & SAMA (PA)

**Comment: 14-8-PA;** I think an environmental review needs to look at what would happen if the concrete wall either collapsed from radiation or if the perimeter was destroyed through the attack of a plane or through the attack of some motorist or some terrorist group planting explosives. What would happen to the radioactive dust and the containment structure because of the weakening?

**Comment: 16-12-PA;** And, I would like to add also that the pools of radioactive waste are extremely vulnerable to terrorists attacks or to other explosions. So, that certainly should be a consideration of the NRC to look at; that is, how are we going to protect those pools of radioactive waste?

**Response:** These comments express concern for the potential adverse environmental impacts associated with postulated accidents. The comments also raise concerns that the GEIS and SEIS do not adequately evaluate the possible impacts of beyond-design-basis accidents initiated by terrorist attacks or sabotage. Under 10 CFR 51.53(c)(3)(ii)(L), license renewal applicants must consider alternatives to mitigate severe accidents if the staff has not previously evaluated SAMAs for the applicant's plant in an environmental impact statement or related supplement or in an environmental assessment. The purpose is to ensure that potentially cost-beneficial, aging-related plant changes (i.e., hardware, procedures, and training) with the potential for improving severe accident safety performance are identified and evaluated

An analysis was developed to support offsite consequence estimates for Level 3 probabilistic risk assessments of severe accidents at light water reactors. Such assessments have long served as the foundation for NRC regulatory decisions, which include analyses of health and safety, land contamination, and economic consequences (NRC, 2009). A description of the code that was used to perform the calculations of the offsite consequences of a severe accident for Davis-Besse can be found in NUREG/CR 6613, Code Manual for MACCS2: Volumes 1 and 2 (NRC, 1998). It is beyond the scope of the Environmental Report (ER) and the SEIS to describe in detail the code's analytical process. However, a description of the application of the MACCS2 code for the Davis-Besse analysis has been provided in the relevant portions in Appendix F of this SEIS.

The SEIS provides a site-specific evaluation of SAMAs in Chapter 5 and Appendix F. However, in the GEIS, the NRC staff did evaluate existing impact assessments performed by the NRC and by industry at 44 nuclear plants in the United States and concluded that the risk from beyond-design-basis accidents at existing nuclear power plants would be small.

With respect to spent fuel pool accidents, onsite storage of spent fuel is considered a Category 1 issue, which was evaluated in the GEIS; therefore, accidents would be encompassed by the analysis of the Category 1 issue of onsite spent fuel storage. As such, the need for mitigation alternatives within the context of renewal has been considered, and the Commission concludes that its regulatory requirements already in place provide adequate mitigation incentives for onsite storage of spent fuel. No discussion of mitigation alternatives is needed in an LRA because the Commission has generically concluded that additional site specific mitigation alternatives are unlikely to be beneficial (NRC, 1996). In addition, the NRC



staff did not find any new and significant information that would call the analysis of the Category 1 issue into question.

A detailed discussion of Postulated Accidents and SAMAs can be found in Chapter 5 and Appendix F of this SEIS.

**Comment: 14-9-PA;** We are in an area of the country that could be affected by the fault if there is a large earth quake, and I think this may not have been examined sufficiently in the environmental impact study.

**Response:** The comment expresses concern for the seismic design of Davis-Besse. The seismic design of the plant is outside the scope of the environmental review; however, structures that are in scope of license renewal are examined and the results are documented in the publication of NRC's Davis-Besse safety evaluation report (SER).

Results of prior geologic, seismologic, and subsurface investigations indicate no evidence of fault traces, offset geomorphic features, shear zones, faults, sand boils, soil flows, or any other direct or indirect physical effects of prior earthquakes. The nearest fault is the Bowling Green Fault, which is located 35 miles west of the site. Geologic, including seismic, information is presented in Chapter 2 of this SEIS.

Insofar as the comments suggest that a seismic event during the period of license renewal could result in environmental impacts, such impacts were considered as part of the SEIS discussion of severe accidents initiated by external phenomena and by the GEIS in its "Review of Existing Impacts." As discussed in Chapter 5 of the draft SEIS, the NRC staff evaluated the risk of beyond-design-basis earthquakes at existing nuclear power plants, and determined that the risk from such events is SMALL; further, the NRC determined that the risks from other external events are adequately addressed by the generic consideration of internally-generated severe accidents in the GEIS, and that this issue should be considered on a site-specific basis in a plant's SAMA analysis. FENOCs SAMA analysis included a search for mitigation measures for accident scenarios initiated by fire and seismic external events. A detailed discussion can be found in Chapter 5 and Appendix F of this SEIS.

Additionally, the NRC has directed operators of nuclear power plants to reaffirm their existing ability to resist earthquakes and flooding as a result of the accident at the Fukushima Dai-ichi nuclear power plants in 2011. Plant-specific actions taken in response to lessons learned from the Fukushima Dai-ichi accident can be found at: <http://www.nrc.gov/reactors/operating/ops-experience/japan-dashboard/japan-plants.html>.

#### **A.1.10 Radioactive & Non-Radioactive Waste (RW)**

**Comment: 20-2-RW;** Kevin already mentioned this, but, the expectation when Davis-Besse and all the other nuclear reactors were built was that there would be a federal repository for all of the high-level nuclear waste and that is not available. And as Kevin mentioned, the Yucca Mountain, facility has been, the funding for it has been discontinued, it has no operating license. That means that for 33 years, all of the high-level radioactive waste generated at Davis-Besse are still being stored on-site, initially in a cooling pool, as I understand it, and then, a few years ago, they, they constructed above-ground containers for the fuel after it cools off, in this pool. So, my, position would be that no nuclear plant license extensions should be granted until there's a long-term storage facility available for these nuclear wastes. And, one of the troubling indicators, I think, is I read through the Environmental Study that is, is mandated for this license extension.

**Comment: 23-7-RW;** There's no place to put the waste and we believe that it is immoral to burden our children and generations far into the future with deadly waste.

**Comment: 24-1-RW;** At that time, planning for the long term containment of the radioactive waste was to be done in the future. We now know that we still do not have any methods approved for the long term storage and isolation of the tons of spent radioactive rods and other radioactive material that is made during the mining and processing of the fuel. This material will be dangerously radioactive to humans and other living things for hundreds of thousands of years. To put that into perspective, we will be starting on the year 2011 of the common era on January 1st.

**Comment: 26-11-RW;** In addition there is a ISFSI. It's dry cask storage of high level nuclear waste. High level nuclear waste is currently stored outside at the Davis-Besse. This has a..there..No one wants this nuclear waste. Yucca Mountain is not going to happen. It's not geologically sound. It's not scientifically sounds. It's not going to happen. Nobody wants this stuff. Yet, the NRC runs a con game. They have "confidence" a "waste confidence" decision. It is a con game. They're asking the public, the folks of Toledo, of Ohio, "Please accept our promise to take this waste at some point. We don't know what to do with it just yet. But, we'll figure it out later on. But, in the meantime just let us go and make more." It's been said that nuclear power is the gift that keeps on giving. It keeps on giving the radioactive waste, and the power is fleeting. But we are left with the deadly lethal legacy for tens of thousands of years.

**Comment: 39-1-RW;** My name is Connie Hammond I live in Columbus Ohio. I'm a member of the Sierra Club nuclear issues committee and the Ohio Green party. My primary concern is with the toxic legacy that we are leaving for our Children and Grandchildren. Beyond the obvious radioactivity and pollution that these plants produce.

**Response:** *These comments address concerns regarding the management of radioactive waste at the Davis-Besse site.*

*No new and significant information is provided in these comments. Therefore, no changes have been made to the SEIS because of these comments. The management of radiological and non-radiological waste is discussed in Chapter 2 of this SEIS. In addition, Chapter 6 of this SEIS contains information on spent nuclear fuel.*

**Comment: 24-4-RW;** Originally nuclear power was touted as power that would be produced so cheaply that it would not even have to be metered. Now we are being told that it will solve the problem of pollution generated by using fossil fuels. We will be replacing carbon problems of pollution, generated by using fossil fuels, with problems of radioactive pollution for which there is no cleanup but time.

**Comment: 36-1-RW;** Hi my name is Bob Patraicus, I have a PhD in political Science. I am a JD. My concerns with Davis-Besse begin with the obvious. There has been contamination. Radioactive contamination at that plant in the past it continues to occur. Moreover the entire process of mining transporting and allowing radioactivity as a fuel source is inherently contaminating.

**Comment: 43-2-RW;** A lot of the people who are working to relicense this nuclear facility are going to have died of old age by the time its finished and then when it's finished we are going to need to worry about cleaning it up keeping it in repair and I don't think that people are really looking ahead to the future and considering you know the work that is going to be involved to make sure that its safe. Nuclear waste and radioactivity has a half life of gabillion years to put it

in kids terminology and you know a lot of the people who are going to be effected by nuclear waste are not even born yet. And so speaking on behalf of the youth, babies, people who cannot speak for themselves. I just wanted to say that relicensing Davis-Besse and using nuclear energy is wrong. It may be expedient for the people who are only planning on living you know 10 or 20 more years then fine but they don't care if the world is going to be destroyed. But there are people who that effects and I would just urge the people who are making this decision to think of the future generations and to be able to think about somebody other than yourselves really.

**Comment: 16-4-RW;** Contamination occurs throughout the milling, refining, transport and conversion of uranium to uranium hexafluoride and then enrichment in which the gaseous diffusion process took as much energy as a large city to enrich the uranium. Then additional uranium must be formulated to ground. An enormous waste - - uranium hexafluoride which is 99 percent of the original uranium but is not fissionable and, therefore, not useable for energy. However, it is just as radioactive and must be then converted back to the more stable uranium oxide. A newly-operated plant at Piketon will take 25 years running around the clock to deconvert the 40,000, 14-ton canisters containing hexafluoride that are already on the site, and that is not counting how much more that might be generated from other conventional facilities, enormous amounts of energy due to this process.

**Comment: 16-24-RW;** The Sierra Club opposes nuclear energy in its entirety, citing serious environmental, health, and public expense issues throughout the nuclear fuel cycle. The time frames needed to guard the radioactive nuclear waste generated from this process are geologic in nature. Isolating the radioactive nuclear waste will consume public time and money for generations to come. The only viable solution for radioactive waste is to stop generating it. Radioactive contamination and waste are a major reason to discontinue the use of nuclear power. The risk and reality is that radioactive contamination has occurred, is occurring and will continue to occur throughout the nuclear power cycle. Mining is leaving radioactive tailings exposed to the air and water on First Nations land in the US, Canada, and Australia. Contamination occurs throughout the milling, refining, transport, conversion of uranium to uranium hexafluoride (UF<sub>6</sub>), and then enrichment - which in the gaseous diffusion process at Piketon, Ohio, took as much energy as a large city. Then the fissionable uranium must be formulated into rods. An enormous waste stream is the depleted uranium hexafluoride (DUF<sub>6</sub>), which is 99% of the original uranium but is not fissionable and therefore not usable for energy. However, it is just as radioactive and must be deconverted back to the more stable uranium oxide. A newly operating plant at Piketon will take 25 years running round-the-clock to deconvert the 40,000 14-ton canisters of DUF<sub>6</sub> already on the site, not counting how much more will be generated from other enrichment facilities.

**Comment: 32-1-RW;** Hi my name is James Whitaker and I'm from in Columbus Ohio and as far as the creation of more radioactive waste here in the state of Ohio I don't think we need to do that I think that the any of the fuels that we have as far as fossil fuels is adequate if it's done properly. But I certainly don't want to create more nuclear waste.

**Comment: 16-18-RW;** So the fleeting use of electricity in the past has left us with a legacy of nuclear waste. But however we understand that the Nuclear Regulatory Commission does not have to even consider that when they are deciding whether or not to license Davis-Besse because in the past the Nuclear Regulatory Commission has made a decision that they are not going to, that this doesn't have anything to do with a new license despite the fact that much more of this dangerous radioactivity is going to be stored at the plant there is no solution for it there is no magic solution that will turn lead into gold it will remain radioactive for millions of

years and will gradually spread itself around. It is so important for the Nuclear Regulatory Commission to look at issues of the onsite storage and to look at containing at least in the near future making this waste safe. The new waste is going to be generated there really does need to be a plan for isolating it onsite. We are not asking for a plan to isolate it for a hundred million years because we all know that's an impossibility. We are asking for some sort of a plan working with Doctor Arjun Makhijani of the Institute for Environmental and Economic Research in Washington DC, we are asking for you the NRC to work with him and look at some serious ways of isolating this waste in canister that are hidden in bunkers where they are safe from terrorist attack.

**Comment: 30-3-RW, 34-5-RW, 39-8-RW, 43-6-RW, 44-4-RW, 50-3-RW, 51-3-RW, 52-3-RW, 53-3-RW, 54-3-RW, 55-3-RW, 56-3-RW, 57-3-RW, 58-3-RW, 59-3-RW, 60-3-RW, 61-3-RW, 62-3-RW, 63-3-RW, 64-3-RW, 65-3-RW, 66-3-RW, 67-3-RW, 68-3-RW, 69-3-RW, 70-3-RW, 71-3-RW, 72-3-RW, 73-3-RW, 74-3-RW, 75-3-RW, 76-3-RW, 77-3-RW, 78-3-RW, 79-3-RW, 80-3-RW, 81-3-RW, 81-8-RW, 82-3-RW, 83-3-RW, 84-3-RW, 85-3-RW, 86-3-RW, 87-3-RW, 88-3-RW, 89-3-RW, 90-3-RW; NUCLEAR ENERGY IS NOT CLEAN OR GREEN ENERGY!** Every nuclear reactor generates about 20 tons of highly radioactive waste per year, and after 40 years of nuclear power, the U.S. still has not found an acceptable solution for the waste. The waste can cause cancer, birth defects, and even death. Nuclear power uses and pollutes significant amounts of water, while the mining, transportation, and enriching of uranium is carbon intensive which contributes to global warming.

**Response:** *These comments express concern over the uranium fuel cycle and of the management of nuclear waste. The environmental impacts of the uranium fuel cycle and solid waste management are contained in Chapter 6 of this SEIS.*

*No new and significant information is provided in these comments. Therefore, no changes have been made to the SEIS because of these comments.*

#### **A.1.11 Socioeconomics (SE)**

**Comment: 1-1-SE;** Good afternoon. My name is Mark Stahl, and I'm the President of Ottawa County Commissioners. Ottawa County is successful because we surround ourselves with successful community partners, and Davis-Besse is one of those community partners, who we look very favorably upon. You will hear from some other agencies, the nonprofits, the contributions that you make back to our community helps us tremendously, and we greatly appreciate that. We also as Commissioners appreciate our NRC partnership. We have had conversations with you, I know, through the years, and we appreciate those unbiased conversations that we've had in regard to Davis-Besse.

**Comment: 2-3-SE;** Many of the Davis-Besse employees live in the community and are important assets to Ottawa County. I think it's very important that the corporate structure that's been put in place to oversee the operations of Davis-Besse continue, and I think it's a good structure.

**Comment: 4-1-SE;** I'm Chris Galvin, Director of the United Way in Ottawa County. The Davis-Besse Nuclear Power Station and on a larger scale the First Energy Corporation are a tremendous community partner to the local United Way. Since 1993, First Energy has contributed more than 13.5 million dollars to United Way of Greater Toledo which serves Ottawa, Wood and Lucas Counties. 3.1 million came from corporate gifts, 10.4 million from its incredibly generous employees. First Energy has also earned United Way's Pillar Award each

year since at least 1992. Our data doesn't go back any further than that. It seems they consistently give more than a hundred thousand dollars each year to the Greater Toledo campaign. Not only does this community consistently get solid financial support from First Energy and its employees, but executive leadership has also demonstrated exceptional personal commitment to our work. In 1993, Don Saunders chaired the local United Way campaign, raising 12.5 million Dollars. In 2005, Jim Murray, now retired, but formerly First Energy President of Ohio Operations, chaired the local United Way campaign. Under Mr. Murray's leadership, the campaign raised 13.3 million Dollars. We also presented Mr. Murray with our Prestigious Caring Award in 2006 for demonstrating value and concern for our community through vision, leadership, service and commitment to the people of our community. In 2009, Trent Smith, Regional President of Toledo Edison First Energy, became chairman of the United Way of Greater Toledo's Board of Trustees and has drawn to a close on his second year of service. Mr. Smith has gone above and beyond the level of service, dedication and commitment we typically see from board chairs. He has become involved in virtually every level of our work, digging in and helping find real solutions. In addition to these executive leaders, numerous upper-level management have supported United Way by using their voice and relationships to help secure financial and volunteer support as well as advocating on behalf of the United Way and the Northwest Ohio Region. In addition to Don Saunders, Jim Murray, and Trent Smith, some of the stand-out employees include Debbie Paul, Mike Adams, and Mel Lomack. Additionally, in the 1990s Jennifer Schreiber served five years as the chair of our community impact cabinet, the highest level of community impact volunteers who decide how money is allocated in this community. Also joining her on the cabinet was Jenny Ammadon. Both are not retired. First Energy also demonstrates incredible commitment to the communities through sponsorships and/or participation in programs and events. In 1993 and 1994, Davis-Besse sponsored our loaned executive program. Jim Ferris, now retired from Davis-Besse, was the landed executive in those two years. First Energy has also sponsored loaned executives over the years, from 1996 continuing for 11 years. Employees consistently contribute to and participate in Stamp Out Hunger and/or Scouting for Food efforts each year. They were a major sponsor of our Family Food Fund in 2008. First Energy was the sponsor of our Community Building event in 2005, and was the initiator and sponsor of the Veterans Appreciation Event in 2006, which continued until 2009.

**Comment: 5-1-SE;** On behalf of the Union, I would like to voice our support in this public. A renewal of this license will not only promote and maintain employment for our members who live and shop and send their children to school in that area, but it will also assure the delivery of reliable electric service to our customers.

**Comment: 8-2-SE;** We also because we have the mandate but we do not receive government funds, I can speak to what Chris Galvin of United Way said with regards to the money that comes into the United Way. We are a United Way Agency, but even besides that, we have profited, the Red Cross organization, from financial support on many levels from First Energy and Davis-Besse as well as from the volunteer aspect of the employees that respond through the involvement of their families. We have three or four blood drives that we conduct at Davis-Besse that are very successful. We have had a lot of leadership that has come out of the Davis-Besse plant. Chuck Witt was a six-year chairman for our local advisory board. Currently, Terry Mortis, who is the Regional Manager also of the Ottawa County District with First Energy that provides a lot of leadership, a lot of guidance to the Red Cross.

**Comment: 9-2-SE;** Davis-Besse over the years has provided a good living, a good income for many residents of Ottawa County and surrounding counties and especially now in a time when unemployment is high.

**Comment: 10-1-SE;** Davis-Besse has been very generous with their donations to the Food Pantry in the past years. I also would like to say that if it were to close, they may be coming to our Food Pantry, and I would hate to see that.

**Comment: 11-2-SE;** It is also important from a license renewal aspect, 20 additional years of this asset to provide for the employment opportunities for the local community, and many of our young engineers are graduating from college today who wonder if nuclear power is a viable future and a career path. It's important to know that plants such as Davis-Besse and others are undergoing renewal process have a future that they can depend on.

**Comment: 12-4-SE;** By extending the license here at Davis-Besse, it would continue to provide good clean power that's critical. In addition to that, also supporting the much-needed tax base, not only to this area but to the State, and I'm confident along with our members, that IBEW, Local 245, that Davis-Besse will continue to be safe, not only for the employees but also for the area.

**Comment: 1-3-SE;** And, the county isn't successful unless you're surrounded by successful community partners, and I can tell you that Brush-Romley (ph) is one of those partners. They contribute tremendously to the good of this community. We also cherish the NRC's partnership that we have. You are our eyes and our ears. You are what helps us maintain the public safety here, and we appreciate that as well.

**Comment: 2-5-SE;** So I've had some broad experience with the Davis-Besse people and with the Nuclear Regulatory Commission, and I think this process and the processes that the NRC uses are great processes, but I think it's important to know that when we look at what Davis-Besse has done over the years and how they have responded to Ottawa County as a community, we couldn't have asked for anything more.

**Comment: 15-2-SE;** The renewal of this license will promote maintaining employment of not only our members who live and shop and send their children to the schools in this area, but it will also ensure the delivery of reliable electric service to all of our customers.

**Comment: 11-5-SE;** We have long-term employment opportunities for the surrounding communities. Younger engineers graduating from college need to know that the nuclear power is very efficient and is a great career. Davis-Besse has a significant impact on the economy of the local area, providing folks, several hundred people employment, providing materials and service in support of the operation of the plant. We have always had a commitment to ensure public safety and a protection of the environment, and that commitment continues today. As you have already heard from several of those speakers, we enjoy a good relationship with the surrounding communities, and we look forward to sustaining this relationship for an additional 20 years.

**Comment: 4-3-SE;** The Davis Besse Nuclear Power Station, and on a larger scale, the First Energy Corporation, are the tremendous community partner to the local United Way. Since 1993, First Energy has contributed more than \$13.5 million to United Way of Greater Toledo which serves Ottawa, Wood, and Lucas counties. \$3.1 million came from corporate gifts. \$10.4 million from its incredibly generous employees: First Energy has also earned United Way's Pillar Award each year since at least 1992...which means they consistently give more than \$100,000 each year to the greater Toledo campaign. Not only does this community consistently get solid financial support from First Energy and its employees, but executive leadership has also demonstrated exceptional personal commitment to our work. In 1993, Don Saunders chaired the local United Way campaign, raising \$12.5 million. In 2005, Jim Murray,

now retired, but formerly First Energy President of Ohio Operations, chaired the local United Way campaign. Under Mr. Murray's leadership, the campaign raised \$13.3 million. We also presented Mr. Murray with our prestigious Spirit of Caring award in 2006 for demonstrating value and concern for our community through vision, leadership, service, and commitment to the people of our community. In 2009, Trent Smith, regional president of Toledo Edison/First Energy, became chairman of United Way of Greater Toledo's Board of Trustees and is drawing to a close on his second year of service. Mr. Smith has gone above and beyond the level of service, dedication, and commitment we typically see from Board chairs. He has become involved in virtually every level of our work, digging in and helping find real solutions. In addition to these executive leaders, numerous upper level management have supported United Way by using their voice and relationships to help secure financial and volunteer support as well as advocating on behalf of United Way and the NW Ohio region. In addition to Don Saunders, Jim Murray, and Trent Smith, some of these standout employees include Debbie Paul, Meg Adams, and Mel Womack. Additionally, in the 1990s, Jennifer Shriver served five years as the chair of our Community Impact Cabinet, the highest level of community impact volunteers who decide how money is allocated in the community. Also joining her on the cabinet was Jenny Amidon. Both are now retired. First Energy also demonstrates incredible commitment to the community through sponsorships of or participation in programs and events. In 1993 and 1994, Davis Besse sponsored our Loaned Executive program, a program that provides United Way with temporary campaign employees. First Energy began sponsoring this program in 1996 and continued for 11 years. Employees consistently contribute to and participate in Stamp Out Hunger and/or Scouting for Food efforts each year. They were a major sponsor of our Family Food Fund in 2008. First Energy was a sponsor of our Community Building Event in 2005 and was the initiator and sponsor of our Veterans' Appreciation Event in 2006 which continued until 2009.

**Comment: 15-6-SE;** A renewal of this license will promote and maintain employment of not only our members, who live and shop and send their children to schools in this area, but...it will assure the delivery of reliable electric service to all our customers.

**Comment: 25-5-SE;** And economically, as we all know, and others have testified to, nuclear power does not make economic sense. In as much as our economy is the management of our household, I think it relates directly to the ecology of our house or our State or our community here, and that ecological system that we are all part of and that this nuclear power plant and the NRC and the other governmental leaders and the other citizens that aren't here, that ecosystem is very much a part of the environment, and any hearing that focuses on environmental impacts has to include all of that as the one ecosystem or environmental that we're in.

**Response:** *These comments concern the socioeconomic impact of Davis-Besse. The majority of the comments are supportive of license renewal, the applicant, in general, and describe the socioeconomic benefits of Davis-Besse. Comment 25-5-SE expresses opposition to license renewal because of the environmental costs. The socioeconomic impacts of renewing the Davis-Besse operating license are discussed in Chapters 2 and 4. In addition, the socioeconomic impact of not renewing the operating license (no action alternative) is discussed in Chapter 8.*

#### **A.1.12 Support of License Renewal (SL)**

**Comment: 1-2-SL;** So, I will let these two gentlemen fill you in, but as President of the Ottawa County Commissioners, I'm here to offer our support to you, Davis-Besse, in your application process.

**Comment: 2-4-SL;** We look forward to a license renewal. Ottawa County wants Davis-Besse to stay, and welcome them in the future and urge the NRC to move forward with this license renewal.

**Comment: 3-2-SL;** So, really, all this adds up to the fact that our relationship in Ottawa County with Davis-Besse is a benefit to the residents of Ottawa County

**Comment: 4-2-SL;** Davis-Besse and First Energy are a valued community partner, both philanthropically and economically. They have been incredible contributors to our community over the past 20 years, and we only hope that this will continue for at least another 20 years.

**Comment: 6-3-SL;** So, it is opinion of the Black Swamp Bird Observatory that the Davis-Besse Nuclear Power Plant is a critical player in bird conservation in the entire region of the western hemisphere.

**Comment: 8-3-SL;** I ask hard questions and I sometimes like the answers, sometimes I'm not so sure about the answers, but I am confident in the safety of the Davis-Besse plant and the good that it does in the community for the people that are involved.

**Comment: 9-3-SL;** We support the license renewal, and we ask the NRC to support it as well.

**Comment: 12-2-SL;** In addition to that, we not only work out local issues but something more important or just as important. We work together on issues in Washington also through our labor management committee. A lot of people probably aren't aware of that, but we do that through our Land Pact Committee.

**Comment: 1-4-SL;** With that said, we're going to have a few people from the Agency describe what Davis-Besse does for Ottawa County, and on behalf of the Ottawa County Commissioners, I would like to extend our full support in regards to their application.

**Comment: 15-1-SL;** And, on behalf of the Union, I would like to voice our support at this public meeting for a multitude of reasons.

**Comment: 11-4-SL;** This effort is important to us for several reasons. This licensing extension will allow us to continue to provide safe, reliable environmentally friendly electricity to our customers for years to come. Davis-Besse is an important asset, and the Company's generation portfolio shows we have a good mix of power generation service.

**Comment: 4-4-SL;** Davis Besse and First Energy are a valued community partner, both philanthropically and economically. They have been incredible contributors to our community over the past 20 years and we only hope this will continue for at least another 20.

**Comment: 15-5-SL;** My name is Jane Ridenour and I am President of OPEIU Local 19. OPEIU stands for Office & Professional Employees International Union and we represent the clerical support staff at Davis Besse. On behalf of the Union I'd like to voice our support at this public meeting.

**Response:** *These comments are general in nature and express support for nuclear power or the license renewal of Davis-Besse or both. The comments provide no new and significant information and will not be evaluated further.*



### 1 A.1.13 Terrestrial Resources (TR)

2 **Comment: 6-1-TR;** Our organization has been conducting migratory bird regions in this area  
 3 for more than 20 years, and we really take pride in this marriage, and we work hard like a good  
 4 spouse to maintain it. The marsh represents a critical stop-over habitat for millions of migratory  
 5 birds. And, in fact, many the world's leading bird experts consider this marsh to be one of the  
 6 most critical areas of stop-over habitat in the entire western hemisphere.

7 **Comment: 6-2-TR;** The observatory in these 20 years have had the full support of First Energy  
 8 and Davis-Besse to conduct this critical research and, in fact, during a very exciting tumultuous  
 9 time in this country's history, we were very afraid that our consistent effort meaning that seven  
 10 days a week, spring and fall, during song bird migration, our research staff was out at that  
 11 marsh in front of the power tank conducting this research seven days a week for more than 20  
 12 years. When the tragedy occurred on 9/11, we were very concerned for, of course, the human  
 13 tragedy, but also concerned that our research would be interrupted. And, in fact, Davis-Besse  
 14 really fully understood the importance of this research, and the importance of conserving the  
 15 integrity of the data set, and we didn't miss a single day. And, perhaps nothing else, no other  
 16 event in our history or recent history speaks more to how much they have said they understand  
 17 the critical role that they play in local environmental and conservation issues than that event.  
 18 So, based on our long-standing relationship, it is our opinion the Davis-Besse and First Energy  
 19 have not only worked to fully understand and fully support the environmental issues for this local  
 20 community, but have also fully embraced the role that they play in all of these issues.

21 **Response:** *The NRC staff agrees with the Black Swamp Bird Observatory in its*  
 22 *characterization of Davis-Besse marsh habitat as critical stop-over habitat. Additionally, the*  
 23 *NRC staff incorporated the Black Swamp Bird Observatory's publically available research*  
 24 *publications into Chapter 2 of the draft SEIS.*

25 **Comment: 45-1-TR;** There are no Federal wilderness areas or designated critical habitat within  
 26 the vicinity of the proposed site. Davis-Besse consists of 954 acres, of which approximately  
 27 733 acres are marshland that is leased to the U.S. Government as part of the Ottawa National  
 28 Wildlife Refuge. In a letter dated December 16, 2009, we provided comments to FENOC on the  
 29 proposed 20-year renewal of the operating license for Davis-Besse. At this time we have no  
 30 additional comments.

31 **Response:** *The NRC staff incorporated the U.S. Fish and Wildlife Services' information*  
 32 *provided in this comment into the draft SEIS, including the information in the referenced*  
 33 *December 16, 2009, letter to FENOC, which was provided in Appendix C of FENOC's ER.*

**1 Comment Letters and Meeting Transcripts**

- 2 The following pages contain the comments, identified by commenter designation (from  
3 Table A-1) and comment number, from letters, e-mails, public scoping meeting  
4 transcripts and the transcript from the People's Hearing.

Commenter: Mark Stahl

19

1 are Mark Stahl of the Ottawa City Commission, and then  
2 Jere Witt of Ottawa County, and Fred Petersen of the  
3 Ottawa County EMA.

4 If you would like to speak from this  
5 microphone, that would be fine. Go ahead and lead  
6 off.

7 MR. STAHL: Thanks, Mark.

8 Good afternoon. My name is Mark Stahl, and  
9 I'm the President of Ottawa County Commissioners.  
10 Ottawa County is successful because we surround  
11 ourselves with successful community partners, and  
12 Davis-Besse is one of those community partners, who we  
13 look very favorably upon.

14 You will hear from some the other agencies,  
15 the nonprofits, the contributions that you make back to  
16 our community helps us tremendously, and we greatly  
17 appreciate that.

18 We also as Commissioners appreciate our NRC  
19 partnership. We have had conversations with you, I  
20 know, through the years, and we appreciate those  
21 unbiased conversations that we've had in regard to  
22 Davis-Besse.

23 So, I will let these two gentlemen fill you  
24 in, but as President of the the Ottawa County  
25 Commissioners, I'm here to offer our support to you,

1-1-SE

1-2-SL

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Commenter: Jere Witt

20

1 Davis-Besse, in your application process.

2 Thank you.

3 MR. WITT: Thanks, Mark. I appreciate you

4 putting Mark before Fred and I because he's our boss.

5 I'm Jere Witt. Many of you know me. I'm County

6 Administrator for Ottawa County. I've been with the

7 County for 32 years, and ironically when I looked at the

8 dates on there, I started with the County on July 20,

9 1978, and I believe the plant began operating in on July

10 31, 1978. So, we're pretty close on our birth dates

11 there.

12 I've been involved, as I said earlier, many

13 years with Davis-Besse and especially within the last

14 five to ten years. I was part of the restart overview

15 panel that worked for two years on the head issues. I

16 got my nuclear degree during that two years. I much

17 appreciated, and I really got a better feeling for

18 Davis-Besse and the nuclear industry.

19 I currently serve on the Company Nuclear

20 Review Board to ensure that Davis-Besse continues to

21 operate safely, and there's a bunch of nuclear experts

22 on there and then there's me, but it's easy for me to use

23 their expertise to see if Davis-Besse operates safely,

24 and I'm happy to say that every time we've met, we have

25 concluded that Davis-Besse does continue to operate

2-1-OS

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2-1-OS  
continued

1 safely.

2 I attend and participate in the NRC quarterly  
3 exit meetings of Davis-Besse, and those have been  
4 another way for Ottawa County to keep informed on what's  
5 going on with Davis-Besse.

6 I receive many, many, many more than I really  
7 want to see daily e-mails from the plant, but the most  
8 important one is the morning e-mail that I get every  
9 morning that tells the current status of the plant and  
10 the issues that are going on, and it's an easy way for  
11 me to keep up daily. I'm kept informed by plant  
12 management. I think I get calls in the middle of the  
13 night any time there is an issue, and we appreciate that  
14 because it's showing their concern that Ottawa County is  
15 able to keep inform.

16 As Mark mentioned, we work closely with the  
17 NRC. We've been meeting with them quarterly just to  
18 bring us up to speed, hear what's going on at  
19 Davis-Besse, and get the NRC's side of that.

20 I actually have a vested interest in the  
21 plant. I own property that abuts the plant, and it's  
22 very important to me that they keep that plant operating  
23 safely. I have a cottage there that my -- when the head  
24 incident happened, my grandchildren and their mother and  
25 dad were living there, and my wife kept asking me if I

2-2-OS

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1 knew what I was talking about, that it was safe, and I  
2 was assuring her that I did.

3           We continue to watch closely to see that the  
4 plant does operate safely. I have personally witnessed  
5 the transformation of the site personnel in the new  
6 safety culture, and they continue to maintain that  
7 culture, and I think that is one of the most important  
8 things that any nuclear power plant has to do.

9           I believe that the people who work at  
10 Davis-Besse and have witnessed how they challenge each  
11 other for safe plant operation. I don't think that was  
12 necessarily always true years ago, but today they do, in  
13 fact, and at many of my visits out there, I have  
14 witnessed how they challenge each other.

15           Many of the Davis-Besse employees live in the  
16 community and are important assets to Ottawa County. I  
17 think it's very important that the corporate structure  
18 that's been put in place to oversee the operations of  
19 Davis-Besse continue, and I think it's a good structure.

20           Davis-Besse has been a great asset to the  
21 community and are very involved in Ottawa County. We in  
22 Ottawa County will continue to watch and make sure the  
23 plant operates safely, but through my past involvement,  
24 I have no concerns for the safety of Davis-Besse.

25           We look forward to a license renewal. Ottawa

2-2-OS  
continued

2-3-SE

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Commenter: Fred Petersen

23

1 County wants Davis-Besse to stay, and welcome them in  
2 the future and urge the NRC to move forward with this  
3 license renewal.

2-4-SL

4 Thank you very much.

5 MR. BARKLEY: Thank you Jere.

6 Fred?

7 MR. PETERSEN: Thank you. My name is Fred  
8 Petersen. I'm the Director of the Ottawa County  
9 Emergency Management Agency. I've been involved in the  
10 EMA for 16 years and ten months.

11 I want to talk specifically about the Ottawa  
12 County EMA's good working relationship with Davis-Besse  
13 Power Station. Largely because of that relationship we  
14 provide a lot of benefits.

15 All of our plans and procedures are thorough  
16 and well maintained and are regularly exercised. Those  
17 exercises are conducted specifically on the radiological  
18 side biannually. So, every two years, FEMA comes in and  
19 evaluates our performance plan to keep us in compliance.

20 Over the years that I have been associated  
21 with the agency and even prior to that, we have had no  
22 significant issue on our exercises, and they perform  
23 very well.

3-1-OS

24 Our emergency operation center and our risk  
25 management agency are generally better equipped, more

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1 well maintained and larger and larger staffed than most  
2 counties of our size throughout the State of Ohio. And,  
3 that is because of our partner.

4           We feel like we're very well prepared for  
5 anything that happens here in the county, specifically  
6 radiological rescue emergency preparedness. But, some  
7 of the things that we do on the radiological side that  
8 really benefit us are lot of spill-over benefits on  
9 preparedness work review at Davis-Besse. Those would  
10 include, we have a great relationship with our fire,  
11 EMS, law enforcement, private response orientation in  
12 the county, and that's because we regularly exercise  
13 training and work with them.

14           So, all the events that have happened in the  
15 county, we have been very successful with our response,  
16 and a lot of that is because of everything we do with  
17 Davis-Besse, and how it helps with our relationship.

18           An example of that would be the tornado this  
19 past June. Everyone that was involved had some sort of  
20 role in the radiological response program. A lot of the  
21 response procedures that we use for Davis-Besse are very  
22 applicable to some of the things that we had to do like  
23 HAZMAT.

24           The tangible things that we have is because  
25 of Davis-Besse. One of the things that is very

3-1-OS  
continued

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Commenter: Chris Galvin

25

1 noticeable in the county is we have county-wide siren  
2 system. A large part of that is at the Davis-Besse  
3 plant, and is available to us for any number of outdoor  
4 notifications that need to be relayed; specifically,  
5 weather, very, very important to the community.

6 We also do a brochure calendar for our  
7 particular State of Ohio, Lucas County, that goes to all  
8 of our residents and provides them a plethora of  
9 information about all types of emergency response and  
10 what they can do in response to tornadoes, floods,  
11 HAZMAT and radiological emergency.

12 So, really, all this adds up to the fact that  
13 our relationship in Ottawa County with Davis-Besse is a  
14 benefit to the residents of Ottawa County.

15 Thank you.

16 MR. BARKLEY: Thank you.

17 The next three people I would like to call  
18 are: Chris Galvin of the United Way; followed by Jackie  
19 VanTress of OPEIU, Local 19; and following, Kimberly  
20 Kaufman of the Black Swamp Bird Observatory.

21 Thank you.

22 MS. GALVIN: I'm Chris Galvin, Director of  
23 the United Way in Ottawa County. The Davis-Besse  
24 Nuclear Power Station and on a larger scale the First  
25 Energy Corporation are a tremendous community partner to

3-1-OS  
continued

3-2-SL

4-1-SE

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1 the local United Way. Since 1993, First Energy has  
2 contributed more than 13.5 Million Dollars to United Way  
3 of Greater Toledo which serves Ottawa, Wood and Lucas  
4 Counties. 3.1 Million came from corporate gifts, 10.4  
5 Million from its incredibly generous employees.

6 First Energy has also earned United Way's  
7 Pillar Award each year since at least 1992. Our data  
8 doesn't go back any further than that. It seems they  
9 consistently give more than a hundred thousand dollars  
10 each year to the Greater Toledo campaign.

11 Not only does this community consistently get  
12 solid financial support from First Energy and its  
13 employees, but executive leadership has also  
14 demonstrated exceptional personal commitment to our  
15 work.

16 In 1993, Don Saunders chaired the local  
17 United Way campaign, raising 12.5 Million Dollars.

18 In 2005, Jim Murray, now retired, but  
19 formerly First Energy President of Ohio Operations,  
20 chaired the local United Way campaign. Under Mr.  
21 Murray's leadership, the campaign raised 13.3 Million  
22 Dollars. We also presented Mr. Murray with our  
23 Prestigious Caring Award in 2006 for demonstrating value  
24 and concern for our community through vision,  
25 leadership, service and commitment to the people of our

4-1-SE  
continued

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1 community.

2           In 2009, Trent Smith, Regional President of  
3 Toledo Edison First Energy, became chairman of the  
4 United Way of Greater Toledo's Board of Trustees and has  
5 drawn to a close on his second year of service. Mr.  
6 Smith has gone above and beyond the level of service,  
7 dedication and commitment we typically see from board  
8 chairs. He has become involved in virtually every level  
9 of our work, digging in and helping find real solutions.

10           In addition to these executive leaders,  
11 numerous upper-level management have supported United  
12 Way by using their voice and relationships to help  
13 secure financial and volunteer support as well as  
14 advocating on behalf of the United Way and the Northwest  
15 Ohio Region.

16           In addition to Don Saunders, Jim Murray and  
17 Trent Smith, some of the stand-out employees include  
18 Debbie Paul, Mike Adams, and Mel Lomack. Additionally,  
19 in the 1990's Jennifer Schreiber served five years as  
20 the chair of our community impact cabinet, the highest  
21 level of community impact volunteers who decide how  
22 money is allocated in this community. Also joining her  
23 on the cabinet was Jenny Ammadon. Both are now retired.

24           First Energy also demonstrates incredible  
25 commitment to the communities through sponsorships and/

4-1-SE  
continued

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Commenter: Jackie VanTress

28

1 or participation in programs and events.

2 In 1993 and 1994, Davis-Besse sponsored our  
3 loaned executive program. Jim Ferris, now retired from  
4 Davis-Besse, was the loaned executive in those  
5 two years. First Energy has also sponsored loaned  
6 executives over the years, from 1996 continuing for  
7 11 years.

8 Employees consistently contribute to and  
9 participate in Stamp Out Hunger and/or Scouting for Food  
10 efforts each year. They were a major sponsor of our  
11 Family Food Fund in 2008.

12 First Energy was the sponsor of our Community  
13 Building event in 2005, and was the initiator and  
14 sponsor of the Veterans Appreciation Event in 2006,  
15 which continued until 2009.

16 Davis-Besse and First Energy are a valued  
17 community partner, both philanthropically and  
18 economically. They have been incredible contributors to  
19 our community over the past 20 years, and we only hope  
20 that this will continue for at least another 20 years.

21 Thank you.

22 MR. BARKLEY: Thank you, Chris.

23 Jackie?

24 MS. VANTRESS: Good afternoon. My name is  
25 Jackie VanTress, and I am representing OPEIU, Local 19.

4-1-SE  
continued

4-2-SL

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Commenter: Kimberly Kaufman

29

1 "OPEIU" stands for Office and Professional Employees  
2 International Union, and we represent the clerical  
3 support staff at Davis-Besse.

4 On behalf of the Union, I would like to voice  
5 our support in this public meeting. A renewal of this  
6 license will not only promote and maintain employment  
7 for our members who live and shop and send their  
8 children to school in that area, but it will also assure  
9 the delivery of reliable electric service to our  
10 customers.

5-1-SE

11 Research has shown that nuclear power is  
12 clean, is efficient and produces more energy at a lower  
13 cost than any other means of generation. So, it is  
14 important that we keep this plant in operation.

5-2-AL

15 Local 19 is proud of the safety record and  
16 operations at Davis-Besse as well as the work we do here  
17 and the service we provide to the public. OPEIU, Local  
18 19, would like to continue to be a part of the team for  
19 at least the next 20 years.

5-3-OS

20 Thank you.

21 MR. BARKLEY: Thank you, Jackie.

22 MS. KAUFMAN: Good afternoon everybody. My  
23 name is Kimberly Kaufman, and I'm the Executive Director  
24 of Black Swamp Bird Observatory, and while I understand  
25 the seriousness nature of this hearing, I'm actually

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1 really pleased to have this opportunity to address this  
2 group.

3 My organization represents a somewhat unique  
4 marriage, if you will, between a conservation  
5 organization and a nuclear power plant. The general  
6 public and, of course, all of you in the room are  
7 certainly familiar with the fact that the nuclear power  
8 plant resides in this part of Ottawa County, but very  
9 few are actually aware that the power plant co-exists  
10 with the thriving marsh that just sort of forms a hub  
11 around the power plant.

12 Our organization has been conducting  
13 migratory bird regions in this area for more than  
14 20 years, and we really take pride in this marriage, and  
15 we work hard like a good spouse to maintain it.

16 The marsh represents a critical stop-over  
17 habitat for millions of migratory birds. And, in fact,  
18 many the world's leading bird experts consider this  
19 marsh to be one of the most critical areas of stop-over  
20 habitat in the entire western hemisphere.

21 The observatory in these 20 years have had  
22 the full support of First Energy and Davis-Besse to  
23 conduct this critical research and, in fact, during a  
24 very exciting tumultus time in this country's history,  
25 we were very afraid that our consistent effort meaning

6-1-TR

6-2-TR

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1 that seven days a week, spring and fall, during song  
2 bird migration, our research staff was out at that marsh  
3 in front of the power tank conducting this research  
4 seven days a week for more than 20 years.

5 When the tragedy occurred on 9/11, we were  
6 very concerned for, of course, the human tragedy, but  
7 also concerned that our research would be interrupted.  
8 And, in fact, Davis-Besse really fully understood the  
9 importance of this research, and the importance of  
10 conserving the integrity of the data set, and we didn't  
11 miss a single day.

12 And, perhaps nothing else, no other event in  
13 our history or recent history speaks more to how much  
14 they have said they understand the critical role that  
15 they play in local environmental and conservation issues  
16 than that event.

17 So, based on our long-standing relationship,  
18 it is our opinion the Davis-Besse and First Energy have  
19 not only worked to fully understand and fully support  
20 the environmental issues for this local community, but  
21 have also fully embraced the role that they play in all  
22 of these issues.

23 So, it is opinion of the Black Swamp Bird  
24 Observatory that the Davis-Besse Nuclear Power Plant is  
25 a critical player in bird conservation in the entire

6-2-TR  
continued

6-3-SL

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Commenter: Steve Inchak

32

} 6-3-SL  
continued

1 region of the western hemisphere.

2 Thank you.

3 MR. BARKLEY: Thank you, Kimberly.

4 The next three people I would like to call

5 are Steven Inchak, who is representing Congressman

6 Dennis Kucinich; Beth Leggett with the American Red

7 Cross; and Brad Goetz of the IBEW, Local 1413.

8 Welcome, Steve.

9 MR. INCHAK: Good afternoon.

10 Thank you for the opportunity to speak. My

11 name is Steve Inchak, and I work for Congressman

12 Kucinich, and what I'm going to do is simply read a

13 letter that the Congressman sent to the NRC chairman

14 today, and it reads as follows. And, I would also like

15 to ask that you consent to include the article

16 referenced in the official record, which I will provide

17 after I read the letter. It reads as follows:

18 "Dear Chairman Jackstow: First energy should

19 not be allowed to continue to operate Davis-Besse

20 after 2017. The people of Northeast Ohio are

21 familiar with First Energy's pathetic record in

22 protecting the safety of people who live in this

23 region. In a series of recent articles in the

24 Toledo Blade, which I am enclosing, the people of

25 our Region are reminded about the 12-minute

} 7-1-OL

} 7-2-OS

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1 interruption to the feed water flow to the steam  
2 generators on June 9, 1985, which was cited as a  
3 'potential catastrophe.'

4 "The people of our region are reminded of  
5 Davis-Besse's reactor head 'weakened by years of  
6 neglect' which nearly burst in 2002. The people  
7 of our region are reminded that your predecessor,  
8 Harold Denton, stated in 2004 that these two  
9 incidents represent 'the nuclear industry's  
10 second and third lowest points after three-mile  
11 Island.'

12 The people of our region are reminded that  
13 First Energy employees tried to conceal the truth  
14 of the 2002 incident from the Nuclear Regulatory  
15 Agency, using tricks, 'schemes or devices' to  
16 deliberately mislead your Agency.

17 "The people of our region are reminded that  
18 David Pullman, Chief of the Justice Department's  
19 Environmental Crime Section, said that First  
20 Energy showed 'brazen arrogance' and 'breached the  
21 public trust by withholding information about the  
22 reactor head incident.

23 "The people are reminded that federal  
24 prosecutors described the reactor head incident as  
25 'one of the biggest coverups in US nuclear

7-2-OS  
continued

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1 history.'

2 "The people of our region are reminded that  
3 First Energy paid a record fine of \$33.45 Million  
4 as a result of its actions. Of that amount, a  
5 record \$28 Million was a fine that First Energy  
6 paid to 'avoid being criminally prosecuted for  
7 lying to the government about the dangerous  
8 condition of Davis-Besse's reactor head'  
9 according to then US Attorney Greg White in 2006.

10 "While these fines were record fines at the  
11 time they were imposed, I pointed out then that  
12 the total fine was merely one percent of First  
13 Energy's profit in 2004. While these fines may  
14 have been record fines, they were a mere slap  
15 on the wrist for First Energy and did nothing near  
16 to what would have been necessary to change its  
17 corporate culture.

18 "The corrosion of the reactor head started  
19 because the Davis-Besse reactor head was made of  
20 an alloy that would not withstand this kind of  
21 corrosion. All of the other operators and nuclear  
22 reactors with similar heads confronted the  
23 situation by replacing their reactor heads with  
24 new heads of a different alloy that would not be  
25 subject to this kind of corrosion.

7-2-OS  
continued

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1 "In 2004 First Energy chose cost over safety,  
2 and it replaced the corroded reactor head with  
3 another reactor head made of exactly the same  
4 material.

5 "Six years later First Energy made us shocked  
6 to discover that the corrosion was forming on that  
7 inferior reactor head as well. Still, First  
8 Energy had not learned its lesson. They wanted  
9 to postpone the final replacement of the reactor  
10 head with a new head made with a noncorroding  
11 alloy until 2014.

12 "First Energy did not abandon that 2014  
13 replacement date until the NRC threatened to  
14 require Davis-Besse to shut down for an inspection  
15 of the old reactor head every year until it was  
16 replaced.

17 "Only as a result of that threat is First  
18 Energy finally going to install a noncorroding  
19 reactor head in 2011.

20 "Recent events suggest that First Energy  
21 still has a corporate culture that is more focused  
22 on costs and profits than on its safety.

23 "In 2009 Davis-Besse suffered an explosion  
24 and fire in the power switching gear located  
25 outside of the reactor building which First Energy

7-2-OS  
continued

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1 failed to report and did not declare an alert.

2 "The evidence shows that this culture exists  
3 in First Energy beyond its operation of  
4 Davis-Besse. The NRC has been keeping a 'close  
5 watch' on First Energy's operation at its  
6 Perry reactor in Northeast Ohio as well. The NRC  
7 remains concerned that Perry's safety culture is  
8 not up to industry standards and has maintained a  
9 close watch there for the last two years.

10 "Davis-Besse has been operating for  
11 33 years. It has experienced two of the  
12 industry's most serious nuclear incidents during  
13 those years. This is not just bad luck. The  
14 problems at Davis-Besse are a direct result of  
15 First Energy's mismanagement and disregard for the  
16 safety of people who live and work in the area and  
17 who would be affected by any nuclear incident.

18 "The NRC should not grant a license to a  
19 company that only operates safely while a  
20 'special' inspection team is monitoring its  
21 day-to-day activities and when a 'close watch' is  
22 being kept on it.

23 "The NRC must continue to keep a close watch  
24 on Davis-Besse between now and 2017 and then to  
25 ensure that, first, this aging reactor with a

7-2-OS  
continued

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Commenter: Beth Leggett

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1 deplorable history of operations and maintenance  
2 be safely shut down and decommissioned at the end  
3 of its current license.

7-2-OS  
continued

4 "Sincerely, Dennis J. Kucinich, member of  
5 congress."

6 Thank you.

7 MR. BARKLEY: Thank you, Steven. We will  
8 receive that letter into the record.

9 Beth?

10 MS. LEGGETT: My name is Beth Leggett.  
11 I'm the Director of the American Red Cross in Ottawa  
12 County, part of the greater Toledo area chapter which is  
13 a regional chapter for all of Northwest Ohio.

14 Through my position with the Red Cross, I  
15 have seen cooperation that is envied between the  
16 Emergency Management Agency and First Energy Davis-Besse  
17 amongst the agency's first responders because of the  
18 emergency preparedness that we do, we have been educated  
19 to do over my 22 years in this position.

8-1-OS

20 In Northwest Ohio, we're envied because of  
21 the readiness that we have from the Red Cross standpoint  
22 as well as from the whole county and the agencies that  
23 are involved.

24 We have a congressional mandate to prepare,  
25 prevent and respond to emergencies through the Red

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1 Cross. I think the Emergency Management Agency, Fred  
2 Petersen, spoke to the cooperation with all things that  
3 we do to help us be ready and to protect the citizens of  
4 Ottawa County.

8-1-OS  
continued

5 We also because we have the mandate but we do  
6 not receive government funds, I can speak to what Chris  
7 Galvin of United Way said with regards to the money that  
8 comes into the United Way. We are a United Way Agency,  
9 but even besides that, we have profited, the Red Cross  
10 organization, from financial support on many levels from  
11 First Energy and Davis-Besse as well as from the  
12 volunteer aspect of the employees that respond through  
13 the involvement of their families.

8-2-SE

14 We have three or four blood drives that we  
15 conduct at Davis-Besse that are very successful. We  
16 have had a lot of leadership that has come out of the  
17 Davis-Besse plant. Chuck Witt was a six-year chairman  
18 for our local advisory board.

19 Currently, Terry Mortis, who is the Regional  
20 Manager also of the Ottawa County District with First  
21 Energy that provides a lot of leadership, a lot of  
22 guidance to the Red Cross.

23 And, I'm going to take my Red Cross hat off,  
24 and I want to say that May 15, 1979, I became a new mom  
25 for the very first time, and when my daughter was

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Commenter: Brad Goetz

39

1 two years old, had not the rain storm come the afternoon  
2 of the protest march in front of Davis-Besse, I would  
3 have been in it.

4 And, I sat here today and thought how far  
5 I've come and how grateful I am to have had the  
6 exposure, educationally through the community, through  
7 my friends to see the Davis-Besse plant in a whole  
8 different light. I was young in the Nineties. I'm a  
9 little bit smarter now about how those things work, and  
10 I ask hard questions and I sometimes like the answers,  
11 sometimes I'm not so sure about the answers, but I am  
12 confident in the safety of the Davis-Besse plant and the  
13 good that it does in the community for the people that  
14 are involved.

8-3-SL

15 Thank you.

16 MR. BARKLEY: Thank you, Beth.

17 Brad?

18 MR. GOETZ: Good afternoon. My name is  
19 Brad Goetz, and I'm the Business Manager of the  
20 International Brotherhood of Electrical Workers, Local  
21 1413. We represent security at Davis-Besse.

22 I just want to say that I'm a 26-year  
23 employee at Davis-Besse, and over the years, the safety  
24 culture has improved greatly and continues to improve  
25 every day. The plant is well protected, not only for

9-1-OS

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Commenter: Ann Heckerd

40

1 the safety inside the plant but also for the members of  
2 1413.

3 Davis-Besse over the years has provided a  
4 good living, a good income for many residents of Ottawa  
5 County and surrounding counties and especially now in a  
6 time when unemployment is high.

7 We support the license renewal, and we ask  
8 the NRC to support it as well.

9 MR. BARKLEY: Thank you, Brad.

10 There are three people who are still signed  
11 up to speak. If there are any other people who would  
12 like a speak, please come and see me.

13 The last three people I would like to call up  
14 are Ann Heckerd of the St. Vincent de Paul Food Pantry,  
15 Brian Boles of FENOC, and Larry Tscherne of IBEW, Local  
16 245.

17 MS. HECKERD: I am Ann Heckerd, the Food  
18 Coordinator for the St. Vincent de Paul Food Pantry, and  
19 I'm going to talk more on the economic aspect.

20 Davis-Besse has been very generous with their  
21 donations to the Food Pantry in the past years. I also  
22 would like to say that if it were to close, they may be  
23 coming to our Food Pantry, and I would hate to see that.

24 MR. BARKLEY: Thank you, Ann.

25 Brian?

} 9-1-OS  
continued

} 9-2-SE

} 9-3-SL

} 10-1-SE

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Commenter: Brian Boles

41

1 MR. BOLES: Good afternoon. My name is  
2 Brian Boles. I'm the Plant Manager of Davis-Besse.

3 Our license renewal is a high priority item  
4 for the state and for the county. We have had a number  
5 of people working on this project now for well over a  
6 year -- I see a number of those members are here -- to  
7 put together a good product which we have submitted to  
8 the NRC for their review.

9 It's a priority for us as a company because  
10 Davis-Besse is a significant asset to our company. It  
11 provides a large source of safe, reliable, environmental  
12 friendly electricity to the surrounding area.

11-1-AL

13 It is also important from a license renewal  
14 aspect, 20 additional years of this asset to provide for  
15 the employment opportunities for the local community,  
16 and many of our young engineers are graduating from  
17 college today who wonder if nuclear power is a viable  
18 future and a career path. It's important to know that  
19 plants such as Davis-Besse and others are undergoing  
20 renewal process have a future that they can depend on.

11-2-SE

21 At Davis-Besse we do commit to ensuring the  
22 public safety and protecting the environment. I'm sure  
23 the review as we go through this license renewal process  
24 will bear that out, and as evidenced by a number of the  
25 speakers here, we do enjoy a very good relationship with

11-3-OS

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Commenter: Larry Tscherne

42

1 the surrounding community. We look forward to extending  
2 that relationship for another 20 years.

3 Thank you.

4 MR. BARKLEY: Thank you, Brian.

5 Finally, Larry?

6 MR. TSCHERNE: Thank you and good  
7 afternoon. My name is Larry Tscherne. I'm the Business  
8 Manager for IBEW, Local 245, the International  
9 Brotherhood of Electrical Workers.

10 We represent 22 counties here in the  
11 Northwest Ohio, including Ottawa County here. But, in  
12 addition to that, we also represent over 200 physical  
13 workers at Davis-Besse that provide operations,  
14 maintenance, chemistry, radiation and protection of the  
15 plant.

16 Now, what I'm going to talk about here  
17 briefly isn't an opinion. It's a fact. I know that  
18 from our members and the involvement that I have with  
19 the plant, and not only with the plant but with senior  
20 management. I'll go as far as the President of FENOC,  
21 Jim Lynch, who includes all the other business managers,  
22 the leadership of the local unions from the entire  
23 FENOC. We meet on a regular basis a couple times a year  
24 with the President. We share and open up any type of  
25 discussion that we have. Nothing is held back, open

} 11-3-OS  
continued

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1 communication all the way through.

2 We do the same thing with the Plant Manager  
3 at Davis-Besse, with the Maintenance Manager at  
4 Davis-Besse.

5 We have worked over a number of issues, going  
6 into outages, we have heard testimony here about the  
7 head incident. Let me tell you the type of relationship  
8 that we have been able to develop in the goal of working  
9 together in a good labor-management relationship which  
10 is important and critical, especially in this type of  
11 industry.

12 During that incident, the plant, as you know,  
13 was down for, what, two years, maybe a little less.  
14 Over that period of time and the hundreds of man hours  
15 that were involved, multiple shift changes. You can't  
16 imagine what we had to go through to get that plant back  
17 up and running. We had four grievances filed; four out  
18 of the entire period of time.

19 I only use that as an example because when we  
20 meet, we continue to talk about the safety culture and  
21 good maintenance practices which leads me to my next  
22 point.

23 The safety culture, the dedication of the  
24 employees, training and the craftsmanship are second to  
25 none. Again, that's not an opinion. That's a fact. We

12-1-OS

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1 had the opportunity to review all of that and we  
2 participate not only in the training but in the  
3 development of the training.

4           So, with that said, I would have to say that  
5 First Energy has been open and honest in all of their  
6 discussions with us. There's never been a time where I  
7 haven't been able to call either Akron or the plant and  
8 get an answer. It's just been terrific.

9           In addition to that, we not only work out  
10 local issues but something more important or just as  
11 important. We work together on issues in Washington  
12 also through our labor management committee. A lot of  
13 people probably aren't aware of that, but we do that  
14 through our Land Pact Committee.

12-2-SL

15           By extending the license here at Davis-Besse,  
16 it would continue to provide good clean power that's  
17 critical. In addition to that also supporting the  
18 much-needed tax base, not only to this area but to the  
19 state, and I'm confident along with our members, that  
20 IBEW, Local 245, that Davis-Besse will continue to be  
21 safe, not only for the employees but also for the area.

12-3-AL

12-4-SE

12-5-OS

22           Thank you.

23           MR. BARKLEY:     Thank you.

24           I'll make one last call for anyone who would  
25 like to make a statement.

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Commenter: Mark Stahl

18

1 leave here tonight, please do not hesitate to contact  
2 us.

3 This concludes my presentation. Mr.  
4 Barkley?

5 MR. BARKLEY: Okay, thanks very much.

6 The first three people I would like to  
7 call are Mark Stahl, Ottawa City Commissioner; Jere  
8 Witt, Ottawa County Commissioner; and Mike Drusbacky  
9 of Ottawa County EMS. Thank you.

10 MR. STAHL: Good evening, ladies and  
11 gentlemen, and thank you for coming out on such a  
12 rainy night. My name is Mark Stahl. I'm the  
13 President of the Ottawa County Board of Commissioners.

14 And, the county isn't successful unless  
15 you're surrounded by successful community partners,  
16 and I can tell you that Brush-Romley (ph) is one of  
17 those partners. They contribute tremendously to the  
18 good of this community. We also cherish the NRC's  
19 partnership that we have. You are our eyes and our  
20 ears. You are what helps us maintain the public  
21 safety here, and we appreciate that as well.

1-3-SE

22 With that said, we're going to have a few  
23 people from the Agency describe what Davis-Besse does  
24 for Ottawa County, and on behalf of the Ottawa County  
25 Commissioners, I would like to extend our full support

1-4-SL

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Commenter: Jere Witt

19

} 1-4-SL  
continued

1. in regards to their application.

2. Thank you.

3. MR. WITT: Thank you, Mark. It's not  
4. proper to correct your boss, but you meant  
5. Davis-Besse.

6. Now, most of you were here at the first  
7. session, so I will make my comments brief and not  
8. repeat everything I said. The one thing I think I  
9. want to make sure everyone understands, and for those  
10. of you who were not here, I am the County  
11. Administrator for Ottawa County. I also serve on the  
12. County Nuclear Review Board for Davis-Besse, I also  
13. was a part of the restart overview panel when they had  
14. the head issue.

15. So I've had some broad experience with the  
16. Davis-Besse people and with the Nuclear Regulatory  
17. Commission, and I think this process and the processes  
18. that the NRC uses are great processes, but I think  
19. it's important to know that when we look at what  
20. Davis-Besse has done over the years and how they have  
21. responded to Ottawa County as a community, we couldn't  
22. have asked for anything more.

} 2-5-SE

23. And, we certainly fully support how they  
24. have changed their safety culture; frankly, how they  
25. have changed many, many personnel from the days when

} 2-6-OS

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Commenter: Mike Drusbacky

20

1 they had issues, and those people are not there any  
2 longer. This is a new company. It has better  
3 oversight from the corporate level, and I think most  
4 importantly as we urge the NRC to approve this  
5 process, let's remember that this is the lives of  
6 people in Ottawa County and not let people with  
7 political agendas somehow impede that process. The  
8 people in Ottawa County have and will support  
9 Davis-Besse, and we as a county on behalf of the Board  
10 of Commissioners certainly do support them.

2-6-OS  
continued

11 Thank you.

12 MR. DRUSBACKY: It stinks to get old.  
13 My name is Mike Drusbacky, Deputy Director of the  
14 Ottawa County Emergency Management Agency.  
15 Commissioner Stahl and Jere Witt are a couple of my  
16 bosses.

17 I've been with the Ottawa County Emergency  
18 Management for 21 years, and I would like to speak  
19 today on what Davis-Besse has meant to us as not only  
20 the Emergency Management Agency but what Davis-Besse  
21 and what we do affects Ottawa County as a whole, not  
22 just on the nuclear side.

23 Our plans and procedures that we have for  
24 Davis-Besse are very thorough, well maintained and  
25 tested regularly because of the requirements of the

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1 plant. This ultimately makes us better able to  
2 respond to other types of natural disasters,  
3 technological hazards.

4 Unfortunately, we have had our share of  
5 natural disasters with tornados in our community, and  
6 we had one just this past June. And, we had  
7 Davis-Besse's support in our Emergency Management  
8 Agency and our emergency operation center in helping  
9 to mitigate and respond to that disaster. We've had  
10 train derailments, we've had electrical outages, and  
11 we have had very good support from the plant.

12 So, the emergency operating center of the  
13 EMA are better equipped, we're better prepared and we  
14 have one of the largest staffs than those of other  
15 counties in Ohio. This has been very good for our  
16 radiological preparedness requirements. We exercise  
17 regularly because of these requirements of the plant.

18 Other benefits also have been a very good  
19 working relationship through Ottawa County's emergency  
20 response departments, our local fire departments, our  
21 local EMS departments, law enforcement, other  
22 organizations because of the training and exercise  
23 that we do to meet the requirements that we have for  
24 Davis-Besse.

25 We have a county-wide siren warning system

13-1-OS

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Commenter: Joseph DeMare

22

1 that is used for all hazards, not just Davis-Besse,  
2 not just for the emergency planning zone, but all our  
3 county is covered by alternate warning sirens.

4 All these I've mentioned, the training,  
5 the preparedness and responses that we do, all this  
6 ends up in that we have a very solid relationship and  
7 that relationship has benefited the residents of  
8 Ottawa County.

9 Thank you very much.

10 MR. BARKLEY: Thank you, Mike.

11 Okay, the next three people I want to call  
12 are Joseph DeMarr, the Green Party at Wood County;  
13 Jane Ridenour of OPEIU, Local 19, and then finally  
14 Patricia Marida of the Sierra Club.

15 MR. DEMARR: Good evening. Like most  
16 people in the Northwest Ohio area, I first found out  
17 about the scoping meeting earlier in the week when  
18 there was a story in the Blade. So, I had not had an  
19 opportunity to completely read the Environmental  
20 Impact Statement that's been prepared with the  
21 application for the license renewal.

22 But, I think that that is one of the  
23 issues that should be dealt with in the scoping  
24 process at either another later meeting or perhaps  
25 further announcements, and at the very least, I would

13-1-OS  
continued

14-1-LR

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1 like to request a hard copy also be placed in the Wood  
2 County Library in Bowling Green, Ohio.

} 14-1-LR  
continued

3 There are several unique aspects of the  
4 location of Davis-Besse that should be dealt with in  
5 any environmental review and proposed continuation of  
6 this plant, most of them having to do with being on  
7 the shores of the Lake.

8 One of them is that we must consider in  
9 the case of a worst case scenario, coordination with  
10 Canada in terms of the effect of an accident that  
11 might occur at this plant.

} 14-2-OS

12 Another is the possible effect on the  
13 seven-billion-dollar fishery in Lake Erie.  
14 Specifically, I think you should look at how the  
15 wastewater and how the temperature effluent from this  
16 plant would affect and possibly affect indicia species  
17 such is the Asian carp. In other words, does the  
18 operation of Davis-Besse make it more or less likely  
19 that indicia species could come in here and ruin our  
20 fishing.

} 14-3-AQ

21 There are several safety issues that  
22 impact on the environmental questions. First of all,  
23 I personally know a first responder. We've had  
24 conversations about Davis-Besse. He told me that they  
25 have been told that in the event of some sort of

} 14-4-HH

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1 accident, the only thing they have to worry about is  
 2 radioactive iodine, and since they will be given pills  
 3 for radioactive iodine, they don't even have to worry  
 4 about that.

14-4-HH  
 continued

5 This suggests to me that the front line  
 6 first responders may not have an adequate idea of how  
 7 dangerous, meaning the radioactive nuclear heads are,  
 8 even to neutrons to spot them, and this could lead to  
 9 bad decision-making in the event of an accident which  
 10 could lead to increased contamination of the earth.

14-5-OS

11 The (siren system, I have lived in  
 12 northwestern Ohio off and on for 20-some years, and  
 13 about 24 years when my son was about one year old,  
 14 there was a short circuit at Davis-Besse, and the  
 15 evacuation sirens were all sounding, and no one  
 16 reacted at all in Northwest Ohio. I finally called  
 17 the state police and asked why the sirens were going,  
 18 and they told me, "Oh, it's just a short-circuit at  
 19 Davis-Besse." I believe the siren system is  
 20 completely adequate.

14-6-OS

21 The plant has been operating long enough  
 22 with the nuclear radiation weakening the structure.  
 23 We've learned at Chernobyl that eventually this  
 24 weakening can proceed to such an extent that the  
 25 concrete or a portion of the concrete can actually

14-7-OS

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1 fail, collapse.

2 I think an environmental review needs to  
3 look at what would happen if the concrete wall either  
4 collapsed from radiation or if the perimeter was  
5 destroyed through the attack of a plane or through the  
6 attack of some motorist or some terrorist group  
7 planting explosives. What would happen to the  
8 radioactive dust and the containment structure because  
9 of the weakening?

14-8-PA

10 We are in an area of the country that  
11 could be affected by the fault if there is a large  
12 earth quake, and I think this may not have been  
13 examined sufficiently in the environmental impact  
14 study.

14-9-PA

15 Also, downwind from Davis-Besse in the  
16 local communities here, there is a cancer cluster.  
17 The state studied this cluster and it was woefully  
18 inadequate. It consisted of dosimeters, given to  
19 about a fifth of the families. They went out in the  
20 yards and ran the dosimeters themselves looking at the  
21 sky. They didn't find anything, but I'm not sure they  
22 -- I believe this happened when Davis-Besse wasn't  
23 actually running, and it doesn't address the fact that  
24 there may have been emissions in the past, and there  
25 could be emissions in the future.

14-10-HH

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Commenter: Jane Ridenour

26

1                   So, I think that any federal environmental  
2 impact statement would have to look at known emissions  
3 from Davis-Besse which are routine, such as I have,  
4 and correlate those with the cancer cluster in these  
5 local counties and look for cancers that are  
6 specifically known to correlate with the nucleates  
7 that we know of at least, such as thyroid cancer.

8                   I know I only have about five minutes  
9 here. I want to say that I know -- as an  
10 environmentalist, I know that the NRC is given an  
11 impossible task here. Any process that generates  
12 radioactive pollution that will be able to cause  
13 cancer, birth defects and hurt people for the next --  
14 for millions of years in some cases, by definition, it  
15 can't be done safely.

16                   In this specific case, Davis-Besse has one  
17 of the worst operating records in the industry.  
18 That's widely known. This will actually be a very  
19 interesting test case to see if the NRC is able to  
20 deny any license. I think if any license should be  
21 denied, it would be Davis-Besse.

22                   But, thank you for your attention and have  
23 a good night.

24                   MR. BARKLEY:     Thank you, Joseph.

25                   MS. RIDENOUR:   Thank you. Good evening.

14-10-HH  
continued

14-11-OS

14-12-OL

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1 My name is Jane Ridenour, and I am President of the  
2 OPEIU, Local 19. OPEIU stands for Office and  
3 Professional Employees International Union, and we  
4 represent the clerical support staff at Davis-Besse.

5 And, on behalf of the Union, I would like  
6 to voice our support at this public meeting for a  
7 multitude of reasons. The renewal of this license  
8 will promote maintaining employment of not only our  
9 members who live and shop and send their children to  
10 the schools in this area, but it will also ensure the  
11 delivery of reliable electric service to all of our  
12 customers.

13 Research has shown that nuclear power is  
14 clean, it is efficient and it produces more energy at  
15 a lower cost than any other means of generation. So,  
16 it is important that we keep this plant in operation.

17 Local 19 is proud of their safety record  
18 and their operations at Davis-Besse as well as the  
19 work that we do here and the service that we provide  
20 to the public. OPEIU, Local 19, would like to  
21 continue to be a part of that team for the next 20  
22 years.

23 Thank you.

24 MR. BARKLEY: Thank you, Jane.

25 We'll call Patricia Marida.

15-1-SL

15-2-SE

15-3-AL

15-4-OS

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Commenter: Patricia Marida

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1 MS. MARIDA: My name is Patricia Marida.  
2 I'm the Chair of the Nuclear Issues Committee of the  
3 Ohio Sierra Club. And, we had a whopping four days to  
4 know about this meeting. I had four days ahead. I  
5 learned about it this morning and have come up from  
6 Columbus here.

16-1-LR

7 The Sierra Club opposes nuclear energy in  
8 its entirety, citing serious environmental health and  
9 public expense issues throughout the nuclear field  
10 cycle.

16-2-OL

11 The time frames needed to guard the  
12 radioactive nuclear waste generated from this process  
13 are geologic in nature. Isolating the radioactive  
14 nuclear waste will consume all our time and money for  
15 generations to come. The only viable solution for  
16 radioactive waste is to stop generating it.

17 Radioactive contamination and waste are a  
18 major reason to discontinue the use of nuclear power,  
19 and I might add that the environmental effects occur  
20 across the United States, and all of this should be  
21 come under NRC's consideration.

16-3-OS

22 The risk and reality is that radioactive  
23 contamination has occurred, is occurring and will  
24 continue to occur throughout the nuclear power cycle.  
25 Mining is leaving radioactive plants exposed to the

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1 air and water of our First Nation Plan in the United  
2 States, Canada and Australia. The story in Australia  
3 that's devastating.

16-3-OS  
continued

4 Contamination occurs throughout the  
5 milling, refining, transport and conversion of uranium  
6 to uranium hexafluoride and then enrichment in which  
7 the gaseous diffusion process took as much energy as  
8 a large city to enrich the uranium. Then additional  
9 uranium must be formulated to ground.

10 An enormous waste -- uranium hexafluoride  
11 which is 99 percent of the original uranium but is not  
12 cushionable and, therefore, not useable for energy.  
13 However, it is just as radioactive and must be then  
14 converted back to the more stable uranium oxide. A  
15 newly-operated plant at Piketon will take 25 years  
16 running around the clock to deconvert the 40,000,  
17 14-ton canisters containing hexafluoride that are  
18 already on the site, and that is not counting how much  
19 more that might be generated from other conventional  
20 facilities, enormous amounts of energy due to this  
21 process.

16-4-RW

22 Added together, the disposal to support  
23 the industry's nuclear power also comes with a heavy  
24 carbon price, which means that nuclear power will not  
25 address the pollution, global warming. Centralized

16-5-AM

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1 electric power complete with centralized corporate  
 2 profits for the nuclear and coal industry has been  
 3 heavily subsidized by corporate for many years.  
 4 Without corporate subsidies, loan guarantees and  
 5 liability limits for which the public must bear the  
 6 burden, no nuclear power plant would ever have been  
 7 built.

8 In Ohio, the use of electricity has been  
 9 increasing for a number of years. Now, with  
 10 progressive legislation and Ohio Senate Bill 221,  
 11 energy efficiency and conservation combined with the  
 12 renewable sources of solar, wind and geothermal, these  
 13 are providing so much additional and conserve energy  
 14 to all plants and new coal plants in our state have  
 15 been cancelled, and there's a strong movement to shut  
 16 down the old polluting coal-fired plants.

17 The argument of rising energy is  
 18 irrational at best, and at worst, the resulting global  
 19 warming would threaten our life support system and,  
 20 yes, our way of life.

21 There is good reason why there are no  
 22 nuclear power plants coming on line to replace the old  
 23 ones. Wall Street will not support them. The normal  
 24 up-front cost and a 12- to 20-year length of time for  
 25 completion makes it financially uncompetitive with

16-6-AL

16-7-AM

16-8-AL

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1 wind and solar. On the latter, decentralize, meaning  
2 that jobs are being created all over the state. As  
3 compared to Davis-Besse's extended shut-downs, if the  
4 wind stops blowing or the sun is behind a cloud  
5 somewhere, it is likely not too serious or a long-term  
6 power shortage problem.

16-8-AL  
continued

7 A 20-year extension of the Davis-Besse  
8 operating license is unfounded on the grounds of  
9 future electric generating needs. Even without the  
10 afore- mentioned problems plaguing nuclear power in  
11 general, the Davis-Besse facility is in a tenuous  
12 condition to continue operation even at the present.  
13 Continuing for 20 years past 2017 would constitute  
14 reckless disregard for public safety and environmental  
15 integrity.

16-9-OS

16 The history of failures and dangers at  
17 this plant is well known and well documented, so I  
18 will not reiterate that here. However, the process by  
19 which First Energy and the Nuclear Regulatory  
20 Commission allowed an inspection of the reactor head in  
21 2002 coming within one-eighth of an inch of a nuclear  
22 disaster that would have left the Midwest  
23 uninhabitable and the Great Lakes, the world's largest  
24 fresh water supply, filled with radioactive  
25 contamination shows that the public should have no

16-10-OS

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1 confidence whatsoever in the ability of First Energy  
2 to self regulate or in the NRC to rigorously enforce  
3 and inspect so dangerous an operation of a nuclear  
4 reactor.

5 They were willing to take these incredible  
6 risks based simply on profit. Not only that, the  
7 corporate culture makes it difficult for any one  
8 person to wreck the system or feel responsible for  
9 anything other than following the order of their  
10 immediate superiors.

11 So, I live in Columbus, but this could  
12 still affect me. Even the 40-year time frame for  
13 operations of a parkland does not have an engineering  
14 basis, but it was based on the time needed to pay off  
15 construction costs. What happened to the engineering  
16 responsibility to oversee and advise an operation of  
17 this magnitude of danger?

18 Last but not least, nuclear power is being  
19 used to keep the nuclear weapons industry afloat.  
20 Facilities and research for nuclear power can be  
21 transferred to weapons usage. The USEC, formerly the  
22 United States Enrichment Corporation, now calling  
23 itself USEC, the enrichment plant at Pikeville under  
24 construction is a prime example. More importantly,  
25 however, is the need for legitimating the nuclear

16-10-OS  
continued

16-11-OS

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1 industry. Without nuclear power, the nuclear industry  
 2 would be only about weapons of mass destruction, taken  
 3 in a very different light to university research  
 4 recruiting bright, young scholars to other jobs in  
 5 research in the industry. The time to protect the  
 6 current generation from nuclear power plants shutting  
 7 down approaches. The weapons industry desperate to  
 8 have a nonmilitary front is the tail wagging the dog  
 9 in the push for renewed and continued nuclear power.

16-11-OS  
continued

10 And, I would like to add also that the  
 11 pools of radioactive waste are extremely vulnerable to  
 12 terrorists attacks or to other explosions. So, that  
 13 certainly should be a consideration of the NRC to look  
 14 at; that is, how are we going to protect those pools  
 15 of radioactive waste?

16-12-PA

16 And, the Sierra Club believes that on-site  
 17 storage is the most practical way. Instead of  
 18 shipping these high, most highly radioactive materials  
 19 somewhere else in the country, that they should stay  
 20 as reasonably local as possible and put in canisters  
 21 that are hidden inside buffers.

16-13-OS

22 Thank you.

23 MR. BARKLEY: Okay, thank you.

24 The other two people who have signed up to  
 25 talk who are Brian Boles, the Davis-Besse plant

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Commenter: Brian Boles

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1 manager, and Matthew Heyrman, Lucas County EMS.

2 MR. BOLES: Good evening. My name is  
3 Brian Boles, and I am the plant manager of the  
4 Davis-Besse nuclear reactor.

5 The licensing renewal effort is a current  
6 company and safety priority. A number of individuals  
7 from the license renewal team are present, and they  
8 have worked hard the last year to provide a quality  
9 submittal to the NRC.

10 This effort is important to us for several  
11 reasons. This licensing extension will allow us to  
12 continue to provide safe, reliable environmentally  
13 friendly electricity to our customers for years to  
14 come. Davis-Besse is an important asset, and the  
15 Company's generation portfolio shows we have a good  
16 mix of power generation service.

11-4-SL

17 We have long-term employment opportunities  
18 for the surrounding communities. Younger engineers  
19 graduating from college need to know that the nuclear  
20 power is very efficient and is a great career.

21 Davis-Besse has a significant impact on  
22 the economy of the local area, providing folks,  
23 several hundred people employment, providing materials  
24 and services in support of the operation of the plant.  
25 We have always had a commitment to ensure public

11-5-SE

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Commenter: Matthew Heyrman

35

1 safety and a protection of the environment, and that  
2 commitment continues today.

3 As you have already heard from several of  
4 those speakers, we enjoy a good relationship with the  
5 surrounding communities, and we look forward to  
6 sustaining this relationship for an additional 20  
7 years.

8 Thank you.

9 MR. BARKLEY: Thank you.

10 Matthew?

11 MR. HEYRMAN: My name is Matthew  
12 Heyrman. I'm the Director of Lucas County Emergency  
13 Management Agency. I just want to add to the things  
14 that were said by the Ottawa County representatives.

15 Davis-Besse has -- although my tenure is  
16 not 21 years, it's four. And, the four years that I  
17 have worked with them, they have always been a partner  
18 to us in our planning, our preparedness and our  
19 equipment. I can honestly say that we would not be as  
20 prepared for radiological issues or other emergency  
21 planning issues, nor would we be as equipped as we are  
22 today if Davis-Besse was not there to assist us and  
23 push us in ways we probably wouldn't push ourselves.

24 I'm not sure but I believe every two years  
25 we test our plans, our emergency response plans.

11-5-SE  
continued

17-1-OS

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1 Throughout the two years, we exercise those plans, we  
2 review those plans, and Davis-Besse provides us a  
3 liaison to work through those plans at a desk in our  
4 office.

5 So, Davis-Besse has always been a very  
6 great partner of ours with regard to emergency  
7 preparedness and we look forward to working with them.

8 Thank you.

9 MR. BARKLEY: Thank you, Matthew.

10 That was the last person who had asked to  
11 speak. Is there anyone else who still wants to speak?

12 (No Response)

13 MR. BARKLEY: Okay, thank you for being  
14 very concise with your remarks. We have heard a  
15 number of the good comments this evening, and I would  
16 like to turn it over to Dave Wrona who will talk to  
17 you just for the last minute.

18 MR. WRONA: Thank you, Rich.

19 I would just like to thank everybody for  
20 coming out tonight and participating in our  
21 environmental scoping process. There were a lot of  
22 good comments. I would like to reiterate that there  
23 was an earlier slide that indicates this meeting is  
24 not the only way to give us scoping comments.

25 There are several methods listed on this

17-1-OS  
continued

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### **The People's Hearing on Davis-Besse Relicensing**

The following comments were recorded on December 18, 2010 at St. Mark's Episcopal Church, 2272 Collingwood Blvd., Toledo, Ohio. They are hereby submitted to the Nuclear Regulatory Commission as Public Comments as part of the Scoping Process for the Environmental Impact Statement submitted by First Energy Nuclear Operating Company as part of its Application for operating its Davis-Besse Nuclear Power Station, Unit 1 for an Additional 20-Year Period.

[Docket No. 50-346; NRC-2010-0298]

Speaker	Start	Finish
Anita Rios/ Joe DeMare	00:30	4:20
Anita Rios	4:23	13:40
Kevin Kamps	13:53	33:11
Al Compaan	35:03	57:20
Katie Hoepfl	58:00	1:05:00
Tony Szilagye	1:06:30	1:15:25
Ed McArdle	1:16:08	1:26:13
Phyllis Oster	1:28:04	1:31:15
David Ellison	1:31:42	1:41:00
Michael Keegan	1:41:30	1:53:30
Ralph Semrock	1:54:00	2:02:00
Mike Leonardi	2:02:30	2:09:14
Joe DeMare	2:09:30	2:15:14
Kevin Kamps	2:15:15	

Ms. Rios

...and an activist here in Toledo area and, um. Joe DeMare and myself are going to do our best to facilitate this meeting, make sure things will



Commenter: Joseph DeMare

go smoothly and make sure that everybody who wishes to speak can speak.

We are trying to record these proceedings because it is very important that our audio be very clear...um...so that the NRC doesn't have any excuses..[shhhhhh]...Thank you...um, and I would say I know there's going to be a lot of, um, um. communing and a lot of people sharing information so if you...if you feel like you need to do that, you can always step into the hallway because it is very important that the quality of the sound be absolutely as good as we can get it because we don't want to give the NRC any excuse for discounting this testimony.

Um, I don't know if any of you are, um, aware, but they...they have said that they have never taken video testimony before so this is unprecedented, and with the kind of hoops that they have been making us jump through in order just to have a voice in this process, I think it's probably inevitable that they will try to discount these proceedings. So, for that reason, we are trying to record as...as, um, best as we can with the equipment that we have so let's all be very patient with each other. I'm going to, um, give the mike over to Joe.

Mr. DeMare

OK, thanks, so, uh, if you're one of the scheduled speakers, this is the microphone, this little one here, this is the one that's, uh, actually making the recording for the NRC. So this, this one is for our benefit, so you need to...you need to hit both. So just, uh, a little bit of...imagine it's papparazzi, and, uh, you know, a crowd of reporters that really want to hear it.

So, um, I'd like to welcome you all. Uh, my name is Joe DeMare and I spoke at the official NRC hearing on November 4. And I have to tell you, it was a, uh, a rather disappointing experience, because almost everyone there was either employed by Davis-Besse or they were from an organization that received money from Davis-Besse. And I, I know

14-13-LR

Commenter: Anita Rios

that there are many people, thousands of people, in the Northwest Ohio area, that don't want this license renewed and think it's an insane gamble with our health and safety to run this plant for another 20 years. And though...I felt at that time, those people should be at this hearing, but most people didn't even know it happened. It went by before people could get their thoughts together. And so we asked the NRC to hold another one here in Toledo, they refused, but we have decided to hold our own and that's what this is..that's what this is about.

14-14-OL

14-15-LR

So, uh, we have a lot of very educated, very well-informed speakers. And we have people that are just plain citizens that, uh, but I think most of the people that we've scheduled to speak...feel that Davis-Besse should not be renewed. Uh, we have opened this up to the public and if anyone here wants to, to speak that hasn't been asked to already, you just need to sign up, there's a little sheet outside, I'll ask you to sign.

14-16-OL

And, I think, we're going to learn, we're all going to learn a lot here. I've already learned a lot about Davis-Besse that I didn't know just talking to people as we all organized this. And I just want to publicly thank both the Green Party and the Sierra Club of Ohio, because without them this event would not have been put together. And, uh, and, of course, Beyond Nuclear with Kevin Kamps, and Coalition for a, a Nuclear-Free Great Lakes, and, uh... Am I missing any organization... I think, that's all the organizations, and all the individuals that have come here to, to work on this. So thank you very much, and, uh, let's get started with, uh, Anita, who's going to give a few words. Anita?

Ms. Rios

OK, so, um, a couple of things, a little bit of background about myself and, and, um, just to...put my comments in context. Sorry, I was just forgetting the first thing. Um, just to put my comments in context, um, I was born about 5 miles from here. I live about a mile from here, and, um, a couple years ago, I googled, you know now that we have computers and we can figure things out so easily, how far Davis-Besse

was from me. And Davis-Besse is about 20 miles from here. And, um, I...I have been opposed to nuclear power for a very long time. But as I was thinking about, um, what we are doing here today and, um, what I wanted to talk about today, it kept, um, coming back to me that I think that even if I was in favor of nuclear power, this is still a nuclear power plant that I would want shut down.

18-1-OL

It has had numerous problems, and the other thing that kept occurring to me is, in the context of the, um, the, um, financial meltdown that, um, so many of our government entities were, if not having a hand in at least complicit in not, um, in the fact that they did not follow through in the type of vigilance that they were supposed to, um, be making, to keep unscrupulous individuals from gutting our economic system. And we saw what happened with the SEC, we saw what happened with the banking system, and the mortgage loan system, and that was truly a, a, a financial meltdown.

18-2-OS

Now we're looking at what the NRC is doing in, in its laughable oversight of all the nuclear power plants but Davis-Besse in particular. And it occurs to me that, that...the NRC is a rogue agency and just as the, as the, SEC failed us, failed us, the citizens that it should be, um, watching out for, that is our goals, that is our tool, that is the thing that, the entity that we have put in place through our government to make sure that everybody plays by the rules. And that is what the, um, Nuclear Regulatory Commission is as well. However, it is failing to do that, it has, it has absolutely failed to do that. And what it has done in reference to Davis-Besse and the numerous problems that we have seen is, at Davis-Besse, demonstrates that very clearly.

18-3-LR

So, um, as, as I consider my comments, as I consider my motivations for being here today, and, that they're, they're all motivations of an activist, an activist who, who cares about this community, who is a life-long Toledoan, who has raised my children in this community. My children went to pre-school in this church, and, um, they're grown now. But everytime I think about that, and I think about the proximity of that

4

nuclear power plant, and what it would have done to my children and everybody else's children, there's a certain sense of outrage. And, um, I, I absolutely refuse to feel helpless about this. I think that we, we must speak out.

This is the beginning. Certainly, we don't have enough people in this room. We never do when we try to do something like this. We fit it in between all of the things that we do as, as mothers, as fathers, as, as parts of families, as parts of communities, we fit it in with our jobs, and we are determined to make a change. So as we approach that process here, in, in making comments, that the Nuclear Regulatory Commission will do their utmost to ignore, as, as we approach this process, we have to understand that this is the beginning of the process. This is the beginning of the process of us as citizens, and I believe that "We the People" is one of the most powerful statements that anybody can make. And "We the People" embodies our democracy, so "We the People" will be the ones who will have to challenge not only Davis-Besse but the NRC.

18-4-LR

And what I hope that comes out today is: 1) how dangerous that nuclear power plant is; and 2) how lax the NRC is in its oversight of that, that nuclear power plant. And as I said, I believe that the NRC is a rogue agency. And I think that one of the, the most crucial next steps that each of us must take is to put pressure on all of our elected officials to take a stand on, on this issue, and not just about the relicensing of this nuclear power plant, but on the, the way that the NRC has simply failed, it has simply failed to, to live up to, um, to live up to what it must do in order to keep us safe.

18-5-OS

So, um, a couple of things about Davis-Besse. Um, we, we all remember when it, um, when it corroded to the point where it, um, almost sprang a hole in the nuclear vessel head. And what happened in response to that, um, was that, the first step was they held hearings, they had open hearings.

18-6-OS

5

I attended most of those hearings. Um, they're usually held out in, in Oak Harbour. And certainly anybody who, who depends on public transportation cannot go out there. But I attended all of those hearings. And I recall hearing over and over and over again from, um, FirstEnergy in response to how did this happen and what would they do in response, their, in response to future problems. Their response, again and again, was "It's a learning process," "It's a learning process." And, you know, to me that seemed like the flimsiest of, of reasons, the flimsiest of justifications, the flimsiest of plans for the future, in terms of what they could do to make all of us safer. Um, and, as they kept on, "We're learning," "This is the learning process," um, it occurred to me that if they were criminals, and I consider them criminals. I think that their lack of oversight of the nuclear power plant has been absolutely criminal. If we had somebody, um, who was, who was on trial and they went up before a judge and said "Oh, well, I robbed that bank, but it was a learning experience." I don't think anybody would accept that. Nobody would accept that as justification. We wouldn't just slap them on the wrist and say "Oh, well, now you know better."

18-6-OS  
continued

Um, and in the face of that, in the face of that lack of responsibility and lack of planning for the future, the NRC has continued to do nothing. They just slapped them on the wrist for that, they slapped them on the wrist, they fined them. But if you look at, uh, First Energy's profits, they have gone up, they have, they have never gone down, they never had to really pay for, for what they did here at Davis-Besse. They have shown, uh, a complete lack of responsibility to the people they serve. And the NRC has failed to hold them accountable.

18-7-OL

Now the other thing about FirstEnergy is, First Energy holds a corporate charter from here in Ohio. And I think that one of the next steps that, that we should be pushing towards is to revoke that corporate charter for FirstEnergy. Um, they are, they are a rogue corporation. They have failed to, um, to provide oversight of their own facilities, and they have failed to, um, show any real determination to actually learn from that situation that transpired back when the, um, Davis-Besse almost, um,

18-8-OL

Commenter: Kevin Kamps

melted down actually. So I hope that these proceedings are the first step towards preventing, um, a nuclear meltdown. In the face of the failure of First Energy to be vigilant and maintain its, its facilities appropriately, and in the face of, of the failure of the Nuclear Regulatory Commission to provide adequate oversight, and I would invite each of you to be a part of that next step because certainly we must grow this movement if we are to be effective. Thank you.  
(Appause)

18-8-OL  
continued

OK, our next speaker is Kevin Kamps. And I'm sorry but we don't have a microphone stand so you just have to hold this one and speak into that one.

Mr. Kamps

Hello everybody, Uh, I'm Kevin Kamps. I work for Beyond Nuclear, uh, based in Washington, DC. And, uh, I just wanted to start by saying thanks so much to Anita, and to Joe, uh, to the Sierra Club, to the Green Party, for pulling this event together so quickly, and to, you know, many others who I look forward to meeting and working with, uh, uh, folks running the video cameras so we can get this official public comment to the NRC. [pause] Man, where to start! [laugh]

Um, first thing I'll do is hold this up. [Holds up report entitled, "Davis-Besse Atomic Reactor: 20 *MORE* Years of Radioactive Russian Roulette on the Great Lakes shore?!"] If you haven't heard about this, uh, these handouts are available on the table in the hallway there and, um.... When I heard about Davis-Besse's move to get a 20-year license extension on top of its original 40-year operating license, the first thing I realized I needed to do was to, uh, educate myself on the past history of this reactor. I had heard bits and pieces from several colleagues, uh, Michael Keegan who's in the back here from Don't Waste Michigan and Coalition for a Nuclear-Free Great Lakes, uh, Terry Lodge, she works with the Toledo Coalition for Safe Energy. But I didn't have it, um, in my head all the near-misses and not so near-misses, and, uh, leaks, and

accidents, and incidents, problems that this reactor Davis-Besse has had over the decades. And, uh, so I tried, uh, to get it in here, what I thought was going to be a two-pager ended up being in the end a seven-and-a-half-pager with two and a half pages of footnotes, just in case sceptics thought we were making this stuff out of thin air. And, uh, there were some doozies in there, that I'll just go over them real quickly here. Um, a lot of dodged bullets, a lot of, uh, really scary events. And, uh, you know, credit to Tom Henry of *The Blade* for his extensive coverage, uh, especially since the, the hole in the head incident. So you can see in the footnotes that I, I, um, I cite his work in *The Blade* quite a bit.

Um, the first one that's on this list is the Three-Mile Island meltdown pre-cursor incident of September 1977, about 18 months before Three-Mile Island suffered its 50% meltdown. Uh, Davis-Besse is a twin reactor to Three-Mile Island Unit II and had the exact same accident sequence, uh, underway 18 months earlier. And long story short, fortunately one of the, uh, operators in Davis-Besse's control room recognized what was going on and ended it before, uh, a meltdown occurred. But incredibly, that news, that, uh, "learning experience," as, uh, Anita [laugh] mentioned there from the NRC's perspective, uh, was not communicated to the industry. It was not communicated to the Three-Mile Island, uh, despite the best efforts of an inspector from the NRC's Chicago office, um... So, 18 months later, we have a 50% meltdown at a, at a US atomic reactor. And, uh, for the 30th anniversary of that incident, uh, Three-Mile Island over there, it held a press conference in preparation in Harrisburg. Uh, Harvey Gunderson, who is an expert witness, a nuclear engineer who's working with us up at Fermi III to oppose that new reactor proposal up there, uh, spoke at the press conference for TMI's 30th anniversary. Uh, did a re-evaluation of how much radioactivity, uh, he calculated got out from the meltdown, and take the official version and multiply it by 100 is what Harvey Gunderson says. So, were there health, uh, effects of that? You bet there were. Steve Wayne at the University of North Carolina at Chapel Hill, epidemiologist, uh, has documented several increases in different

19-1-OS

cancers downwind of Three-Mile Islands and the near proximity, including lung cancer. The official version of things, uh, don't recognize this, unfortunately.

19-1-OS  
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So, moving on in, uh, Davis-Besse's history, um, "the worst accident since TMI" was a loss of coolant to the reactor core for 12 minutes, that was in June of '85. Uh, moving on, a direct hit by a tornado in June of '98, where, uh, the emergency diesel generators were breaking down and had to be jerry-rigged time and time again, uh, for the course of 24 to 48 hours, with a very hot reactor core despite being shut down already. And a pool full of irradiated nuclear fuel that was in danger of heating up.

19-2-OS

Uh, the next one down was the hole in the head, that's been mentioned already, uh, within 3/16 of an inch of a breach of the reactor pressure vessel. And as Tom Henry put it in *The Blade*, that would be, uh, the first time since Three-Mile Islands that radioactive steam would, uh, form in a reactor containment building. So all of these threats to the reactor core, you better hope that the reactor containment building functions as designed. But if the meltdown is bad enough and it melts through the foundations of the containment building, the radioactivity is going to get out.

19-3-OS

Uh, in accidents and that are a habit here is the Northeast blackout of 2003. Um, did Davis-Besse's hole in the head expenses and distraction have anything to do with, uh, lack of maintenance on its infrastructure, such as, uh, power lines sagging into trees, which, whoa, just so happens to be the, uh, the start of the Northeast blackout. What do you know? Huh! Wonder if there's any connection there.

19-4-OS

Uh, more recently, March of 2010, a new leak in a reactor lid at Davis-Besse. This, uh, replacement lid is from Midland Nuclear Power Plant in Michigan, which was nearly completely built but never fired up, and it wasn't an exact fit on Davis-Besse's, uh, reactor pressure vessel. But, um, you know, I wanted to mention that there have been victories

19-5-OS



over the years, and one of the victories was when the first lid leak at Davis-Besse occurred, the first proposal by First Energy, and the NRC is pretty infamous for just rubberstamping what companies want, was a plug. They were going to plug the, uh, corrosion hole in the lid. And so a lot of folks showed up with, uh, giant bandaid bumper stickers, and, you know, giant banners that looked like bandaids, and the public pressure had a lot to do with that proposal not flying. But we've got, you know, a new, a new leak in the lid. So they have another replacement lid on the way. Something that should be mentioned about that, speaking of NRC's lack of enforcement of the safety regulations. In the aftermath of Davis-Besse, uh, six lids have been replaced in the United States at pressurized water reactors. Uh, Peach Bottom would be one.

19-5-OS  
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Uh, something that we had learned that has not seen the light of day in the media to this point, the New York Times was sniffing around a story, we did a lot of groundwork for them to try to get them what they needed to run the story, it still has not run, and that groundwork we did was back in early 2007. So, this story has remained silent. The story is that at Palisades in southwest Michigan, a pressurized water reactor with a badly-corroded lid, needing a replacement, the company said by July 2007 the lid needed to be replaced. Well, here we are, how long? Three and a half years later? That lid has not been replaced. Why hasn't that lid been replaced? Well, it turns out that the replacement lid from a company called Babcock and Wilcox Canada was defective. The replacement lid, brand-new lid, fabricated especially for Palisades, had cracks in its bolt holes. And the inspector from Palisades who went up to the factory to check it out let them know that this was the case, and for doing his job, he was fired by the owner of Palisades, because he was messing with the schedule. There was a mutiny of the lid replacement crew. They said, "Hire him back or we're, we're not going to do any work" and they did hire him back. So for a brief period of time, this whistleblower was in communication with Dave Lochbaum of the Union of Concerned Scientists.

19-6-OS

There were six lids replaced with Babcock and Wilcox Canada lids in this country. They were put on at the other nuclear power plants. So the question is: How are those bolt holes on those other lids? So you can see there are serious problems in this industry. Um, moving on down the schedule, I mentioned in here, um, radioactive risks piling up. It should say "on the Lake Erie shoreline," I put "Lake Michigan." There's been problems with that, too, though. I've got Lake Michigan on the mind, here.

19-6-OS  
continued

So the current amount of waste at Davis-Besse is 557 tons of irradiated nuclear fuel. The only reason we know that figure is because spring of 2010 was a magic date in the history of radioactive waste in this country. It's when Yucca Mountain, Nevada, would have been full if it had ever opened. So, uh, spring of 2010, there, there existed 63,000 metric tons of commercial irradiated nuclear fuel in this country, the legal capacity for Yucca Mountain, Nevada, to have accepted as a national dumpsite. So, uh, that's how much, uh, was at Davis-Besse at that time. 557 tons. So it could have been said that every ton of waste generated after spring of 2010 would have been excess to Yucca. The thing is, every ton of waste ever generated in this country is excess to Yucca, because Yucca Mountain is not going to happen. It's geologically unsuitable. It's an earthquake zone. It's a volcanic zone. There's a drinking water aquifer below. If waste is ever buried there, would have ever been buried there, it would have leaked massively over time, ending up in that drinking water supply, created a nuclear sacrifice area over a, a wide region of agricultural land, Native American land, national parkland, national wildlife refuge, all that is downstream. It's not happening. Uh, President Obama and Energy Secretary Chu have canceled the Yucca Mountain dump. They have zeroed out the funding as of last February. That fight is still on. The other side is pushing back. And just last week in federal court in DC, uh, appeals court, the second highest court in the land, agreed to hear a suit brought by the state of Washington, which has a lot of military hi-level radioactive waste, the state of South Carolina, which also has military hi-level radioactive waste, not to mention a lot of commercial waste within its borders. That court case is

19-7-OS

now proceeding in, uh, appeals court. So that fight is still on. But President Obama, who will at least be in office for 2 more years, has decided to, uh, zero out the funding.

19-7-OL  
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And there's ongoing problems with Davis-Besse, um, to the present day. Um, I'd like to just share some figures for, um, what might happen if there were a major radioactivity release at Davis-Besse. This comes from a 1982 NRC report entitled "Calculation of Reactor Accident Consequences," or CRAC, which is a nice little acronym the NRC came up with. So, if there were a major radioactivity release from Davis-Besse, the NRC and the Sandia National Lab in New Mexico, which conducted the study, uh, determined that there could be 1,400 peak early fatalities, they call them, 1,400 peak early fatalities, 73,000 peak early injuries, and 10,000 peak cancer deaths. And they attributed a dollar figure of 84 billion dollars for property damage. So, that study came out in 1982. NRC tried to cover it up. Uh, Congressman Ed Markey of Massachusetts, uh, got it outed by subpoena by holding a hearing and out came the figures. So if you increase, uh, all those casualties due to the increase in population since 1982, if you, uh, increase, due to inflation the, uh, property value damages, that would go up to \$185 billion dollars. And a little update to mention, just came out in, uh, mid-September, uh, "Inside the EPA," which is a trade press, uh, publication in Washington, DC, [cough] uh, scooped the story that they did a freedom of information act release to the NRC, the EPA, and the Federal Emergency Management Agency, and discovered, uh, internal emails between the agencies, the lawyers of the agencies, uh, fighting with each other over a little minor detail of after a major radioactivity release who would, uh, be in charge of the clean-up and how would it be paid for. So it turns out that the lawyers at these 3 agencies, uh, were discussing how Price-Anderson, the national liability, uh, coverage for major nuclear power plant accidents, will not cover the clean up costs. It would cover other things, property damage and, and some very strictly controlled categories, but not clean up costs. So, that's a little issue.

19-8-OL

12

Uh, Davis-Besse, which is deteriorated with age, has already had so many close calls, 2 major accidents. So, you can see things are pretty out of control. Anita mentioned the, uh, NRC as a rogue agency. And we keep trying to figure out what the NRC stands for. Is it Nobody Really Cares? Is it Nuclear Rubberstamp Commission? Uh, it might be Nuclear Rubberstamp Commission, because of, uh, the 60 license extension applications they've considered so far, they have rubberstamped every single one of them. And, uh, these are oldest reactors in the country with major problems.

19-9-OL

Uh, for a long time, groups like this gathered today stopped challenging these license extensions because it was such an obvious rigged process and such waste of time that they didn't even engage with it. There may be other avenues to fight these things. Well, when it came to Palisades in Michigan, first of all we were shocked that the company would even try to get a license extension because this plant, Palisades, was a lemon before it even, even started up. So it was incredible that they, uh, ... and they got it. We, we fought them, we got steamrolled. But the silver lining, I think, uh, was that we learned some things. So Paul Gunter, my coworker at Beyond Nuclear, learned a thing or two about the NRC license extension procedure. And the next one up was Oyster Creek, New Jersey. And, uh, he gave them hell and shined a bright spotlight on Oyster Creek, on a major technical problem, a corrosion of the radiological containment barrier. Had an excellent lawyer from Rutgers University, Richard Webster. Had a great expert witness, uh, who had served us at Palisades in the past, a corrosion expert, a metallurgist named Rudolph Housner. And the 3-man team there really took on Oyster Creek. Got a split decision from the licensing board, which is very rare, a 2 to 1 vote in favor of license extension. Got a split decision at the NRC commission itself, a 3 to 1 vote. And the man who voted against the license extension at Oyster Creek is currently the NRC Chairman, Greg Jaczko. So, that was a huge victory.

Uh, we just learned within the last few days that Oyster Creek, New Jersey, uh, Exelon Corporation of Chicago, under pressure from not only

citizen groups but the state of New Jersey itself, has said "OK, OK, OK, we're not going to operate for 60 years, we'll only operate for 50 years, but don't make us build a cooling tower, we don't want to spend the 200 million, the 300 million on a cooling tower." So unfortunately, a deal's been brokered. They're going to go for 10 more years into the future, but they're not going to go for 20. And so we still need to fight them on the 10, because that plant has so many problems that should require its immediate shutdown. One that I'll mention is that its, uh, waste storage pool is very vulnerable to accident or terrorist attack.

So, just to conclude, I'd like to leave you all with some hope that now license extensions are being seriously challenged, almost the minute that they're brought up. Uh, another one to mention is Indian Point, New York, River Keeper, Hudson River Keeper headed by Bobby Kennedy Junior, has seriously challenged the Indian Point license extension. The state of New York has joined that proceeding. The Attorney General of New York, uh, the Environmental Department of New York, they are also requiring now Indian Point to install cooling towers, uh, to lessen the thermal damage to the Hudson River, just like the thermal damage, the, uh, just, uh, catastrophic destruction of marine organisms going on at these plants that lack cooling towers. That's not an issue at Davis-Besse because they have a cooling tower. But as we raised at Fermi III, we add up all the thermal impacts, of all power plants in this neck of the woods, and all the toxic chemicals they're releasing, I'm talking nuclear and coal and others. Uh, you got to look at even the thermal impacts going on now, the destruction of the, of the eco-system in Lake Erie, um, especially when Fermi III is being proposed.

19-10-AQ

And, uh, there was another, uh, license extension, that I wanted to mention, that's being challenged. I brought some things to look at over here, some old posters from Seabrook New Hampshire, in the mid-1970s. Uh, you know, fifteen hundred people got arrested on a single day in 1977 trying to block the construction of Seabrook. Well, Seabrook has gone for a 20-year license extension and they've gone for it 20 years early, incredibly. They're only 20 years old. They have 20

19-11-AL

Commenter: Joseph DeMare

more years on their license, and they've asked for a 20-year license extension. So Paul Gunter, my coworker, has challenged this 20-year early application, uh, and his main challenge is the wind power potential off the gulf of Maine, which is tremendous. So showing that wind power is a great alternative. And, I'll just close now, uh, by saying that the wind power potential of the Great Lakes is there. That will be one of our contentions against Davis-Besse for 20 more years. And add to that the solar potential, with the biggest solar, uh, panel manufacturing factory in the country right here in Toledo. Add to that the efficiency potential, and there's no need for 20 more years of radioactive Russian roulette on the Lake Erie shoreline. Thank you very much. (Applause)

19-11-AL  
continued

Ms. Rios

OK, just, just a couple of things. I just wanted to remind people that this microphone down here, that's the crucial one, OK? We, we have to make sure we speak into that one. Um, I'm also going to go over the list of speakers, just so everybody knows, OK? Um so that was Kevin Kamps. Our next speaker's going to be Al Compaan. The next person's going to be Kate Hoepfl. Um, then Tony Szylagye, um, Ed McArdle, um, David Ellison, um, did Ralph Semrock ever come? OK, um, Phyllis Oster, and then Michael Keegan. Did Bev Apel come? OK, so that's just so you folks know what our roster looks like so far. So our next speaker is going to be Al Compaan.

Mr. DeMare

OK, so while Al's setting up, I just want to mention that, um, technically what these comments are going to be is part of the Environmental Scoping comments for the Environmental Impact Statement, which is part of the application for the 20-year renewal. So part of that process is that if we could show that there are cheaper, safer, more environmentally friendly alternatives to doing nuclear power, to renewing this license for another 20 years, technically the NRC is supposed to say "OK, you're right, uh, nuclear power isn't that, we won't extend this, uh, licensing

14-17-OL

Commenter: Al Compaan

application." So right now, uh, Al Compaan's going to give the talk and I think he's going to speak to some of this...to some of these very issues.

Dr. Compaan

Thanks, Joe. Uh, I wonder if we could, could we turn these lights down? It may be...the screen may be a little more visible if we turn the lights down. [Turns on Slide Projector] OK, uh, so, uh, Kevin has anticipated, uh, much of what I'm going to say actually. Uh, but let me just give you my background. Uh, I recently retired from the University of Toledo, I'm an Emeritus professor at this point, although I'm maintaining an active research program and my, uh, research area is in, uh, photo-voltaic, so in solar electricity. Um, so what I'd like to focus on are, are the alternatives to, to Davis-Besse, and, uh, uh, first I'll give you an overview of, uh, what, I just want to make a couple of, uh, comments about the history of Davis-Besse which Kevin, uh, actually covered in very nice detail, and his, uh, position paper is, uh, was eye opening to me as well. Uh, one of the things that, uh, that, oops...

One of the things that I think is important to keep in mind is that First Energy and Davis-Besse, um, provides about 8.3% of, uh, First Energy's baseload power generation, so, uh, that's important to recognize in terms of the alternatives. Now, um, in Ohio, Senate bill 221, which was passed in the spring of 2008, uh, mandates for the investor-owned utilities that they should, um, achieve a higher efficiency by reducing demand by 2025 by 22%, a much larger number than the 8.3%, uh, generation that's provided by Davis-Besse. And in addition, achieve 12 1/2% generation from renewals by 2025 and another 12 1/2% generation from so-called advanced energy, which may include new, new advanced nuclear, uh, but, uh, but continuation of Davis-Besse would not qualify for that, uh, additional gen..., for that 12 1/2%.

Distributed generation will also qualify for a, a credit under that Senate bill 221. And, um, alternative sources are very attractive for...wind, as Kevin mentioned, and also solar. Uh, so, uh, Kevin already mentioned

20-1-AL



this, but, uh, the expectation when Davis-Besse and all the other nuclear reactors were built was that would mean that there would be a federal repository for all of the hi-level nuclear waste and that is not available. And as Kevin mentioned, uh, the Yucca Mountain, uh, facility has been, uh, the funding for it has been discontinued, it has no operating license. That means that for 33 years, all of the high-level radioactive waste generated at Davis-Besse are still being stored on-site, initially in a cooling pool, as I understand it, and then, uh, a few years ago, they, they constructed above-ground containers for the fuel after it cools off, uh, in this pool.

20-2-RW

So, uh, my, uh, position would be that no nuclear plant license extensions should be granted until there's a long-term storage facility available for these nuclear wastes. And, one of the troubling indicators, I think, is I read through the Environmental Study that is, is mandated for this license extension. This is a study by Davis-Besse. In Appendix E, that's the Environmental Report, on this page (Page 2.3-2), uh, I quote here, they're, they're required, uh, by their operating license to have monitoring wells to monitor the quality of the groundwater in the, uh, within the perimeter. And one of their wells in 2..., in the spring of 2009 showed a tritium level that was rising, uh, 4000, uh, pico curies/liter. And, uh, this is a quote from their study. "As a result, the First Energy Nuclear Operating, uh, uh, Company," notice that that's a separate operating company from First Energy, from the rest of First Energy, "is pursuing a root cause approach to identify the source of the tritium in the wells. Uh, no tritium concentrations of...have been detected above the, uh, US EPA drinking water limit of 20,000 picocuries." But, this to me is very troubling. Even though the, the, uh, concentration is not that high yet, but it's an increasing amount, the question is where does it come from?

20-3-HY

So tritium is an isotope of hydrogen, it's hydrogen-3, which means one proton and two neutrons, and, uh, it is not naturally occurring and has a half, half-life of 12.3 years. Um, so it is produced in nuc...in all nuclear reactors by a neutron bombardment either of lithium-6, uh, or boron-10.

20-4-HH



And, uh, some of you may remember boron is the acid, uh, well, there's boron in the, the cooling water that is in the pressure vessel, and it was that leaking of boric acid, uh, that was responsible for going through 6 inches of carbon steel in the reactor head. So, the presence of that boron is, uh, uh, under neutron, uh, uh, impact, uh, can produce the, uh, tritium. It's radioactive, it decays, uh, in 12.3 years half-life, and it emits a high-energy electron which is, uh, known as a, a beta particle, um, and, and there's another particle which is an anti-neutrino, which, which almost interacts, uh, uh, so, so, so little that, uh, neutrinos can, pass completely through the earth. So we don't worry about the neutrinos or the anti-neutrinos, but the beta particle is 5.7 kilo, uh...KEV, kilo electron volts, and, uh, this also has a fairly, fairly low penetration. It, it barely gets into your skin, uh, it stops almost with the dead layers of the skin. However, if you ingest it, uh, or you breathe it, then it's very dangerous because it, it has a very short, uh, penetration distance in your lungs or, or in your intestinal tract. So, bec...it's likely to be ingested either as water vapor, as, uh, hydrogen, actually it would be an analog ...isotope, one, one, uh, one atom of hydrogen, one atom of, of normal hydrogen, one atom of tritium, or it, it forms, uh, H<sub>2</sub>O, water, as, uh, most likely a normal hydrogen isotope and a tritium isotope together with oxygen, so you will ingest it if you drink water from one of these contaminated wells. So, just a couple of things to, uh, to remind us of the danger of, of these reactors. Even if there is not a catastrophic meltdown, there are ever-present dangers in these, in the operation of these nuclear reactors.

20-4-HH  
continued

Let's talk about the, uh, alternatives. So, I would argue that, uh, certainly before you extend the 40-year license, this is the design, uh, uh, intended design life for the nuclear reactors, 40 years, uh, uh, Davis-Besse, uh, First Energy wants to extend it by another 20 years. The incident and the accident record that, uh, Kevin talked about should be enough to, uh, not ask for any, any further justification for not renewing their license. But we, uh, should also know that there some very good alternatives for, uh, generating electricity, and one of those normally not thought about as generation, but it's energy conservation.

20-5-OS

20-6-AL

And that is now widely accepted as the cheapest way to get more effectively, to get more energy, it's to use our energy more, uh, more wisely. And then there's a very strong wind resources and solar resources. So, the important thing that, uh, we need to recognize is that, is that these components, energy conservation, wind and solar, are already mandated by Senate bill 221 in the state of Ohio. And, uh, windmills are, uh, used by the, uh, uh, the publicly-owned, uh, utilities, uh, they are allowed by Ohio law to pass through, to pass those costs on to the customers, so, on to the consumers of the electricity. That, that might not have been my favorite way of doing it, but that's the way, uh, the legislators have decided in the Public Utility Commission of Ohio.

20-6-AL  
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So, just a couple of details about Senate bill 221. One component of that is the alternative energy portfolio standard, that's, uh, now embedded in the Ohio Revised Code, this, uh, this, uh, paragraph. It requires, uh, as I've mentioned, 25% electricity generation by advanced energy by 2025, 12 1/2% by renewables, the rest 12 1/2% may be, uh, uh, done through, uh, alternatives such as clean coal, that is, coal-fired power plants that, uh, the carbon dioxide is sequestered, for example. It may be done by advanced nuclear, and that's requiring, uh, NRC Generation III. Uh, Davis-Besse, I believe, is Generation II technology, but Generation III incorporates a passive safety, uh, systems. So even if the power goes out, such as when the tornado came through and disconnected the power plant from its, uh, uh, emergency diesel generators, uh, there would be passive safety equipment in the Gen-II, Gen-III design. And the Gen-III design would be for 60 years of operation instead of 40 years. ORC, the second part of the Ohio Revised Code allows net metering, which, uh, has been implemented. Uh, my home, for example, has photo-voltaics on the rooftop and we can feed power back into the, uh, into the grid and get, uh, full retail value for the power. That's been in place for several years now. And then there's an energy efficiency standard, uh, embedded in another of the Ohio Revised Code paragraphs which requires a 20...22% reduction in, uh, the use of energy from each one of the public, uh, utilities. Furthermore, there is a 7%, uh, requirement for a 7% reduction in peak

20-7-AL

20-8-AL

demand, um, that is the siphoning of power as it increases through the day and decreases at night. Again, these costs may be passed through to the customers, and so there are some very good business reasons why First Energy ought to be doing this, but I think they tend to be stuck in the past, in the technologies of the past.

Here are some additional details, um, that we're going to...that were in the presentation available to the, the NRC. But you can see how the, uh, the requirement for the renewable portfolio standard advanced energy standard increases year by year. And we've now started on that process. There are penalties. If First Energy does not meet those requirements, they will have to pay a penalty. This year, I think it's \$400. \$400 per megawatt-hour, which is equivalent to 40 cents per kilowatt-hour, First Energy will have to pay. And if they have to pay a fine, they are not allowed to pass that on to the ratepayers. If they stimulate the demand for electricity, whether it's...sorry, demand for renewable electricity, then they provide incentives to homeowners or for businesses or for large, uh, utility-scale installations of solar, wind, they are allowed to pass those costs on to the ratepayers.

20-8-AL  
continued

So, let's take a little bit closer look at the resources that are available for wind. Uh, Lake Erie and the Lake Erie shore, as well as all of the Great Lakes, are great resources for, um, for wind energy. So, I, I'm showing here this, uh, wind energy map. This is for the average wind power across the United States. And it may be hard to see from there, but, uh, we hear a lot about the, the wind corridor in the Great Midwest, from Texas through to North Dakota. That's this, uh, region of the Great Plains. But now, the wind, uh, resources uh, in...increase, the average wind power increases as you go from white, actually the key is down here, from white to the light blue to the darker blue and still darker, and you can see that, uh, Ohio, for the most part, has a lot of wind resources that are similar to Texas.

20-9-AL

We hear about Texas because it has the most wind power of any of the, uh, any of the states. And Ohio has similar resources. But if you look

at, in Lake Erie and on the near shore and, uh, up to the border with Canada, you can see it's a very dark blue, and that's similar to some of these mountain passes here. So wind, uh, resource availability in Lake Erie is really, really prime. Uh, much higher than almost any of the places in, in Texas, for example. So that's an indication that there really are tremendous resources out there and wind power is very competitive in terms of, uh, rates for electricity generated by wind power. The big, uh...let me just back up...One of the big issues with Texas, which is now struggling with getting the power, of course they have some major cities, but they can generate more than what can be used in their cities, is how you are going to get the power out to the big metropolitan areas like Chicago and Cleveland and Toledo and so on, and Detroit. That is not a problem when you generate the power in Lake Erie, we have a lot of major metropolitan areas that are very nearby.

20-9-AL  
continued

For solar, Ohio has, uh, actually very good solar insolation as well. Uh, and I want to point out that in this, in this Environmental Report, uh, that's part of the First Energy petition for the renewal, there are some errors in that, in that report. For example, they, they say that the amount of sunlight in Ohio is less than half of what it is in some of the best areas in the country. Uh, that's a bit of a, uh, an error and I'll point out why in just a moment. And then, they also used some data for the costs, which came from back in 1988, and the costs for solar photo-voltaic electricity has come down dramatically since 1988.

One of the mistakes that is commonly, uh, made when you think about solar, is you think about being able to see a sun, uh, the sun in a clear day. And you think, you think, that, well, it's only on those clear days that photo-voltaics will generate usable power. And this is the kind of map that you would use if you were really worried only about direct sunlight, being able to have a clear sky, and being able to see a clear sun out there. And then when you take and you compare Toledo or, or Lake Erie with some areas in the Southwest, and I did the numbers here. Actually, for the...for the South. Uh, when you compare Toledo with Orlando, even when you consider only direct sunshine, Toledo gets 75%

20-10-AL

of what Orlando does, down here in Florida. But it's not as good as San Diego, it's almost 60% of San Diego, ??? Uh, and if you go out to the Mojave Desert, Toledo gets about 45%. So that's a number that's consistent with what, uh, First Energy claimed in that report. However, the real data that you need to look at are the, uh, the full sky radiation.

The point of...Most solar panels are flat panels and they will accept light which is indirect, that is, as it comes scattered in hazy days or light cloudy days and light is scattered from those clouds and still make it to those panels. And so this is the appropriate math that needs to be looked for, uh, the amount of electricity that can be produced by solar panels over the years. So, in that case, if you compared Toledo with Orlando, or Toledo with San Diego, uh, Toledo gets 86% of what, uh, Orlando gets, 79% of what San Diego gets. So the argument that the solar resources in Ohio, in Northern Ohio, are not very good, and actually you can see that the best resources here are Western Ohio and in certain...that's an argument that doesn't, uh, work when you address solar. And the last point that I'd like to make about solar is that there are huge changes that have been happening in the last several years in terms of the costs of solar panels. And the cost driver on this is actually FirstEnergy, uh, First Solar, sorry, First Solar, which is, uh, started here in Toledo, by Toledo industrialists such as Harold, Harold McMaster, and our only US generating, uh, US manufacturing facility is in Perrysburg.

20-10-AL  
continued

They've been, uh, leading the cost reductions. So if you look here, this is a study that was done by Deutsch Bank and updated in 2009. It doesn't go back, uh, to 1998, which is when, when First Energy pulled their numbers, but, uh, you can, you can extrapolate back further if you want. There, it was something on the order of 40 cents/kilowatt-hour for the levelized cost of electricity, as it's called. Um, but in 2010, the cost is about 20 cents/kilowatt-hour for cadmium teluride. This is, this is the type of material in the panels that are made by First Solar. Some of the other kinds of solar panels are shown here, a little bit higher in cost. But what Deutsch Bank projected is that there's going to be a crossover,

20-11-AL

a convergence between the cost of solar-generated electricity, as you go out here to, what is the number, it's like 2017 or so, so, 2017, at about the time when, when FirstEnergy wants to extend the license on the plant, solar is going to be, uh, completely competitive, if not lower cost than, uh, the electricity, than the conventional electricity. Notice that Deutsch Bank is using an average over the United States. Now the cost of electricity in the FirstEnergy territory is actually higher, those of you who live in FirstEnergy territory, your home costs, your home electricity costs are something like 12 or 12 1/2 cents/kilowatt-hour, so the curve for us should really start a little bit higher, and that convergence will happen even sooner.

So, FirstEnergy has the option of extending, uh, a nuclear generating plant with all of its associated dangers and also its costs. The cost of nuclear generated power is high, higher than most of the baseload, um, generating capacity of FirstEnergy. And its cost is continuing to increase. The alternative is to jump on some of the new technology, jump on those bandwagons, and those costs are decreasing. So that's the kind of options that FirstEnergy has, and you'd think that if they really look at it seriously and look at the options that they ought to conclude, that some of these alternative forms of electricity are the ones that ought to be, uh, the ones, uh, that are developed for the long-term future of their, of their company. So, just to make one final point, and that is alternative, uh, alternative energy resources generate lots of jobs. They actually generate, uh, many more jobs than what nuclear power does. Energy conservation, retro-fitting of homes and businesses and so with the more energy-efficient lights, uh, and motors, uh, and thermal efficiency saves, saves, saves energy for everyone. It reduces the need for, uh, uh, generating capacity. Uh, Ohio has a lot of manufacturers that supply components for wind turbines. The maintenance of wind turbines generates many jobs. Uh, I've already mentioned, First Solar is the largest manufacturer in the world. So manufacturing creates jobs. And there are several other PV manufacturers that are beginning, uh, in Ohio, most of them actually in northwest Ohio, in the Toledo area. PV design and insulation creates a num...a large set of jobs.

20-11-AL  
continued

20-12-AL

Commenter: Katie Hoepfl

So this is the final slide with some references for where I pulled some of the data. And, uh, uh, places where you can go for finding the backup material that will support the comments that I just made. Thank you. (Applause)

Ms. Rios

Thank you, Dr. Compaan. And again, I would like, folks, this is, this is the microphone that it's very important to speak into. Um, we will double-check on all this though. If you have your, uh, comments in writing, we would like to submit those along with this, um, this videotape, OK? Our next speaker is going to be Kate, Kate, Hoepfl, Hoepfl.

Ms. Hoepfl

Hello everybody, my name is Katie Hoepfl, student of Professor Compaan's at the University of Toledo. I'm a major in physics. My research is in this renewable energy area. So, what I'm going to be talking about today is alternatives to nuclear power. In FirstEnergy's license renewal application, they dismissed the possibility of almost any form of renewable energy to replace the power production that would be lost by the closing of Davis-Besse. [Displays Slides]

21-1-AL

A lot of the reasons that they used for this dismissal is that intermittency or the volatility of power production by wind and solar, the large land requirements that are used to produce the same equivalent amounts of energy that is produced by Davis-Besse with wind and solar. They mentioned the low wind and low light compared to other states which Professor Compaan has already disputed for us, the associated aesthetic impacts of wind, and the high cost per kilowatt of capacity for solar which, again, Professor Compaan has already disputed for us.

So, what I have done is looked at specific resources here in Ohio, and

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this better understanding of systems that are already in place will help us see that their reasons for dismissal aren't exactly correct.

So what I have done is done some statistical modelling using systems that are already in place here in northwest Ohio. I used one of the wind turbines in Bowling Green, owned by Bowling Green municipalities, and a solar array mounted on the home of Professor Compaan.

This model is a little bit confusing. What it is here is on the X axis we have the volatility or the intermittency of the system that FirstEnergy mentioned. So what that means is that at some points throughout the day it can be high, it can be low. It's unexpected, the power production that would be produced. On here [indicating the Y axis] it's the actual output of the system. So along our curve here we have an entire wind, only wind system, and at the other end we have only solar. And, along the middle is a combination of the two.

So, what I'm going to show you today is that it's not a matter of using one or the other. The combination of these different forms of renewable energy that's really going to help us offset the loss of nuclear power by closing Davis-Besse. So over here on the end of the curve is where we have the least volatility in the system. For this specific northwest Ohio that turned out to be about half wind and half solar that's going to produce the best outcome for us.

Just an example here of what I mean by this. So in a 100% wind system has a volatility something like this. This is the power production over the course of the week by the Bowling Green wind turbine. You can see it's pretty unexpected what it's going to produce throughout the day. And on the opposite end, a 100% solar system, follows a pattern, you only get power production during the day, but even throughout the day you not sure if you're going to get a sunny day, cloudy day things like that are unexpected...So, by optimizing the system, using similar rating, say one megaWatt wind turbine farm and one megaWatt solar array, you get something that's quite a bit more predictable.

21-2-AL

25



Now put this here against a demand curve. This is from EBCOT it's in Texas, but the demand curve for any big city is gonna look about the same. A lot of high peaks during the afternoon, evening hours and lower at night time when we're sleeping. It's quite a bit more predictable, it follows the demand curve.

What I want to point out here, though is that my graph is still quite a bit volatile here, but it's only taking into consideration two specific sites. We only have one wind turbine and one solar array. But, if FirstEnergy were to take their resources and erect, um sorry, use the wind and solar throughout their entire area that they service. Solar, it's not going to be cloudy in all the areas that they service. It's not going to be not windy in all the areas that they service. That's exactly what the (Go to my summary slide, here) European Wind Energy Association in their annual report in 2009. They said exactly that. That as wind and solar is developed across the entire area, the volatility in one specific area does not infect the overall baseload that it's generating.

21-2-AL  
continued

That's another thing I'd like to point out in FirstEnergy's application for Renewal, they kept mentioning that solar and wind are not a good replacement because they can't satisfy a baseload. But, as Dr. Compaan mentioned in his speech, Davis-Besse only produces 8.3% of FirstEnergy's baseload. So, we're not trying to make these curves fit identical. It just has to back up the coal and everything else that's already being produced. So we're using a combination of wind, solar and all the other existing technologies that are out there. They'll be able to easily offset the production lost by Davis-Besse.

The only other thing that I was wanting to mention is the jobs that are going to be created. As he had already mentioned, the maintenance of the wind turbines; the installation of the projects; and also the forecasting that can be done. This was also mentioned in the European Wind Energy Association's annual report. The new technologies. They are able to forecast four hours ahead exactly what the wind speeds are

21-3-AL

Commenter: Tony Szilagye

going to be. So that they can predict if they need to have boost up the coal or other forms of production. It makes it really a lot more stable. So, this argument of volatility doesn't quite hold.

So, if FirstEnergy acts now, we can be prepared for the energy production loss by closing Davis-Besse in 2017. We can also have a head start on meeting the requirements of Ohio Senate Bill 221.

} 21-3-AL  
continued

And that's that. (Applause)

Mr. DeMare

Alright, thank you Kate. That was excellent. I think that a lot of people know and believe the points that you guys are making, but it's wonderful to have the actual numbers provided to us. It's very heartening to not only know that you're right, but to actually see it proved scientifically.

Our next speaker is going to be Tony Szilagye. Tony is a member of the Sierra Club, and I would like to say that the only other person at the hearing that spoke out against the license renewal was named Pat Marida. She was also from the Ohio Sierra Club, and she has also gotten testimony from other people. She has recorded the comments, I think, of 15 other people, who couldn't make it here today. People who live in places like Columbus and Cleveland, and so those will also be entered into the record along with these comments. So um, the depth of opposition to this is very deep.

Thank you, Tony for coming.

Mr. Szilagye

Water is the foundation of life. Um, And it's our most precious resource in Ohio. Nuclear energy is not needed for life here in northwest, Ohio. We need to protect our water resources first from the effects of nuclear forms of pollution. Lake Erie provides drinking water and other

} 22-1-OL

} 22-2-AQ

consumptive uses to millions of people and many different industries in northern Ohio. We rely on Lake Erie for recreation, and we are entrusted to care for and protect the Lake for future generations as well. They have as much a right to the use and enjoyment of Lake Erie as our present generation, even if the comments do not agree.

Davis-Besse is one of the greatest threats to the health of our Lake. Davis-Besse was strategically located on Lake Erie to meet the tremendous needs of Davis-Besse for water as a coolant. This is great for Davis-Besse but not so good for the Lake. Davis-Besse uses water from the Lake and spews it back as thermal pollution. Over the years, this has had consequences for Lake Erie. We have once again had increasing algae problems for Lake Erie. The growth of *lyngbya wollei*, a toxic algae, has accelerated over the past few years along with *microcystis*. These toxic algae have numerous conditions which contribute to their growth. One, of course, is the presence of ample amount of phosphorous and nitrogen. Another ingredient is an abundance of warm water. We have billions of gallons of thermal pollution from the power plants surrounding Lake Erie.

22-2-AQ  
continued

Now, part of these comments were also, um, written by Sandy Benz and below are Sandy's comments.

Um, studies on water use, fish kills, and the thermal impacts at the bay shore park land are over 30 years old. The intake for Davis-Besse is in less than 30 feet of water in the Great Lakes...should have been...in the Great Lakes, in Lake Erie's shallowest most biologically productive waters. Davis-Besse uses an estimated 50 million gallons of water a day which causes fish kills and thermal impacts. While cooling towers at Davis-Besse limit water use and fish kills with the best available technology, there should be an assessment of water use and fish kills. This request is made as the number of walleye are declining from an ODNRS estimate of 80 million about 5 years ago to less than 20 million in 2010.

22-3-AQ

In addition, the amount of toxic algae has increased over the last, uh, 10 to 15 years, so much that the Ohio EPA reports that physical contact with the toxic algae in Lake Erie probably causes illnesses, probably caused illnesses to 10 people in the summer of 2010. If Davis-Besse were to close on schedule, there would be fewer fish killed and no more warm water discharge. The estimated number of fish that would not be killed is unknown because there are no counts of fish impingement, that is, fish caught against screens, and entrainments, fish that go through screens. In assessing whether Davis-Besse should remain open or closed, an updated, independent analysis of the Davis-Besse water impacts, uh, to fish impingement and entrainment and thermal impacts using Clean Water Act 316 A and B protocol needs to be conducted. If the incremental increase in fish kills and added temperature to the water in aiding algae growth and in decreasing walleye numbers, the environmental and economic impact of the fish kills and algae growth should be considered in the requested re-licensing of Davis-Besse. Furthermore, um, should the licensing go forward, the license needs to require periodic impingement and entrainment fish counts and thermal mixing zone plume impacts on algae growth and water quality.

22-4-HH

22-5-AQ

My comments will continue. Um, there are many different incidents that can be used to demonstrate a lack of, of oversight by the NRC and Davis-Besse failures. The following are quotes from the Lessons Learned Report in regard to the hole in the reactor head.

The NRC and the industry regarded the boric acid deposits on the RPV head as an issue that required attention. However, the NRC and the industry did not regard the presence of boric acid deposits on the RPV head as a significant safety concern. The recurring nature of alloy 600 nozzle cracking and boric acid corrosion events indicates that industry actions in general, and Davis-Besse Nuclear Power Plant actions in particular, were less than adequate. Similarly, given that the NRC has issued multiple generic communications addressing these two issues, the recurring nature of these events also indicates the NRC failed to effectively review, assess, and follow up on [unintelligible] operating

22-6-OS

experience. The NRC's AIT concluded that Davis-Besse staff missed several opportunities to identify the boric acid corrosion of the RPV head at an earlier time. In the task force's view this means that Davis-Besse Nuclear Power Station staff missed these opportunities because Davis-Besse staff failed to assure that the plant safety issues would receive appropriate attention. The NRC missed prior opportunities to identify the VHP nozzle leaks and the RPV head degradation. In the task force view, the NRC failed to integrate known or available information into a safety assessment. Babcock and, and Wilcox and CE plants appear to be highly susceptible to boric acid leakage and corrosion. One hundred percent of their plants have reported boric acid leakage-related problems. Given the high incidence rate of boric acid leakage problems, problems at B&W plants, uh, Davis-Besse should have been alerted and taken appropriate, appropriate corrective actions prior to the discovery of the leaking VHP nozzles and the degraded RPV head.

22-6-OS  
continued

Um, and there's other quotes too, but I'll move on. To summarize the meaning of these quotes, um, the NRC spoke about these leaks and they gave warnings of the leaks, and at the same time, relaxed in their oversight of Davis-Besse. The question about lessons learned, um, is not whether, uh, they will learn. Uh, it's, it's also whether we should entrust Davis-Besse to be operated safely and is it safe now? The answer is no. Davis-Besse should not be re-licensed. The other question that has to be considered - is the safety culture within Davis-Besse changed? And if one were to assess the safety culture in personnel...Technology doesn't fail on its own, technology fails...People operate technology. Is the safety culture at Davis-Besse different today? The answer is no. And we believe this should be taken into account in any re-licensing. It is well known that the economic concerns are top priority for the NRC and First Energy, no matter how many of us are fried in a major safety blunder.

22-7-OL

22-8-OS

Here are a few suggestions. In the year 2021, Senate bill 221 will eliminate or generate as much power as Davis-Besse produces. If First

22-9-AL

Commenter: Ed McArdle

Energy takes seriously the opportunities available for generating power through energy efficiency and making agreements for a better payoff for exceeding the energy efficiency targets the Senate bill 221 mandates, they can be more profitable without Davis-Besse. If they take an aggressive look at the potential of combined heat and power, wind, compressed air storage, solar, they can generate either through efficiency or through greater uses of existing resources, the needed capacity that the loss of Davis-Besse will create. There are solutions for generating capacity. For every one cent invested in elec...in energy efficiency, three cents profit is gained. The solutions and incentives...alternative to the continuation of nuclear power to the elimination of nuclear power are already out there. Thank you. (Applause)

22-9-AL  
continued

Mr. DeMare

Alright, thank you very much, Tony. And I just wanted to give credit, right now. The idea of this People's Hearing was actually, initially Kevin Kamps' from from uh. This was his notion. He mentioned, "Well we could just hold a hearing. If they're not gonna give us one" And I'm really glad we did. I've already learned a ton so far, and I'm grateful to everyone who has spoken so far. And our next speaker is Ed McArdle.

Mr. McArdle

Hi folks. Um I prepared written comments for the NRC. I'm really pleading with you all because I'm not sure they'll listen or read them.

23-1-LR

My name is Ed McCardle I'm a Michigan resident that resides within the approximate 50 mile radius of the Davis-Besse nuclear installation. I'm speaking today for approximately 22,000 members and supporters of the Sierra Club of Michigan. Which I point out, I'm not a staff person. I'm a volunteer. I've been working on various pollution issues for a long time. I am the Chapter, the Michigan Chapter Conservation Chair, and I'm just recently getting involved in the nuclear issues. I'm trying to pull more of the Sierra Club to this um crucial issue.

So, we urge the Commissioners to deny the 20 year relicensing. If there ever was a candidate for the first denial of a relicense, this is it. As the history of this facility proves, it is too dangerous and expensive to continue this operation, especially since it is not needed for present or future power generation. I would like to refer the Commissioners to two articles quoting studies that support this latter statement.

23-2-OL

I would first like to quote excerpts from an article in *The Nation* magazine dated February 15, 2010, "The Case for Grade Power." This is generally referred to as using waste heat or cogeneration from large facilities of which Ohio has plenty of. The article uses Ohio as an example for this opportunity. The article states that according to an analysis by Recycled Energy Development, the Libbey Glass Plant in Toledo, the Arselor (unintelligible) Middle School in Cleveland and the (unintelligible) Chemical Plant in Cincinnati together produces enough waste heat to produce between 145 and 185 megaWatts of additional electricity. The study also indicates that Ohio has enough cogeneration potential to retire up to 8 nuclear power plants. According to Oak Ridge National Laboratory this strategy will cost less than half of a coal plant.

23-3-AL

A recent report by Policy Matters of Ohio estimates that recycling 7.7 GigaWatts would require a \$10.5 billion investment with a three year payback. This would have the further effect of making Ohio industries more competitive, more profit, saving both jobs and the environment.

The second article I refer is the November, 2009 cover story in *Scientific American*. I bought this issue and bring it with me to almost everything I go to. This article is entitled "A Plan for Sustainable Future. How to Get All Energy from Wind, Solar and Water by 2030 using Present Technology." The article by Mark Z. Jacobsen of Stanford University and Mark A. Delucchi of University of California, Davis it is describe by the editors of *Scientific American* as a "pragmatic hard headed study." Supply 100% clean energy by 2030 at the same or lower

23-4-AL



cost of traditional fossil and nuclear resources. Frankly, I'm amazed by this article. This is something, I think, we've been waiting for, and something we should push.

Um. Ok. Besides adding all the GigaWatts and the TetraWatts, the article discusses, "How do we get there?" and the answer is we need the political will to pass legislation to give incentives to producers of clean energy. The most effective strategy is based on the feed-in tariff concept. That's f\*e\*e\*d-i\*n-t\*a\*r\*i\*f\*f\*. This is a concept that is kind of foreign to Americans, but this is what the rest of the world calls it. We were thinking of calling it "clean mobile energy", but then we'll have to refer to it as "like the feed-in tariff" in Europe and Asia so I may as well go with the feed-in tariff or FIT. You can check this concept out at FITcoalition.com or .org. There's a lot of it on the Internet um I'll be talking more about that but let me continue with comments.

Okay um feed-in tariff has been widely, wildly successful in Europe, Asia and now, most recently in Ontario. Germany claims that they created over 300,000 jobs with their version of a feed-in tariff. They have cancelled new coal plants and they have a moratorium on new nuclear proposals. Although there is debate to remove the moratorium. The cost to the German rate payer, the public, is approximately \$3 to \$4 a month, about the price of a beer.

Since the passage of the Ontario feed-in tariff last year, the Province has promised to shut down the largest coal plant in North America at Nanticoke and has cancelled several new nuclear proposals. I'm not sure if it's four that are cancelled or six because two are maybe refurbished. So, I'm not sure about that. But they've already started shutting down two coal units at Nanticoke. The articles coming out of Canada are just amazing for this type of legislation.

More than 70 countries and a few states have passed versions of this legislation. I think it's far more than 70 countries, now. But Vermont has passed it's version. There's the Gaines bill for the utility for the State

23-4-AL  
continued



owned utility that's passed for feed-in tariff solar. Consumer's power in Michigan passed a very teeny-tiny one and it was filled up within hours.

Okay according to a report by the National Renewable Energy Laboratory, U.S. Department of Energy, "a well-designed feed-in tariff is far more effective and less costly than the renewable portfolio standard."

23-4-AL  
(continued)

It's past time to admit that we can no longer afford this complicated and dangerous technology--not the feed-in tariff, I'm referring to Davis-Besse. It is not carbon free as claimed, and not sustainable. There's no place to put the waste and we believe that it is immoral to burden our children and generations far into the future with deadly waste. Thank You.

23-5-OL

23-6-AM

23-7-RW

But, I do want to say one more thing about the feed-in tariff. I've been following this issue ever since our state legislator in Michigan, who got term limited and didn't get re-elected, Kathleen Law introduced the first feed-in tariff legislation in North America. And Dr. Herman Schearer from Germany who instituted the concept in the German Parliament long before the United States. She had the same as well as I did. Dr. Schearer died this past year I'm sorry to say. She introduced the first feed-in tariff in the Michigan Legislature. She says she got calls from all over the world. People wanting to, you know, companies wanted to located whoever had passed the feed-in tariff. Because the feed-in tariff actually guarantees not only do you get the capital costs and a fifteen to twenty year contract, usually, and a profit, a modest profit.

Boy. You know, let's go get 'em. Let's get that money. But it's especially well suited to a um to solar, because then you don't have to build out the grid. You can have more distributed power and therefore you don't have to have a big utility be part of the feed-in tariff until an excess is given. Extra power is produced. But, you know, anyone can do it. Anyone can get one of these contracts, if they can get the finance them. That includes farmers, that includes, you know communities, towns, villages,

churches, individuals, etc. So this is really the most effective thing that we can do, and we need to do this.

Thank You. (Applause)

Ms. Rios

Okay, just to let you know, we have um one, four more speakers scheduled and I don't think we're going to have anybody else coming in um if we have somebody else coming in we'll certainly accomodate them. But then we will be able to take a break to share information, and also to let you know that one of the things that we're hoping to do today, before you all leave is that Kevin has um some information that um.. He has a contention. Which is a part of the next process in front of you. The process after we oppose the licensing.

But those of us who live within fifty miles of Davis-Besse have to validate what Kevin and Beyond Nuclear are saying for that for them to have standing. We'll talk about that. We'll bring Kevin up again before we finish up so that he can explain that process so that those of us who are willing to go ahead and sign on to his contentions.

Mr. DeMare (interrupting)

Uh Anita?

Ms. Rios

Yes?

Mr. DeMare

Um we need to swap out our video card. It will take about 5 minutes.

Ms. Rios

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Commenter: Phyllis Oster

Do we want to take a five minute break?

Mr. DeMare

For technical reasons, yes, I do.

Ms. Rios

Okay, we'll take a five minute break. Bathrooms are out in the hallway.

Ms. Oster

I had been involved in the initial opposition to granting a license for the building of Davis-Besse and I certainly didn't expect to be at a relicensing opposition meeting.

My husband was a geneticist in the biological sciences department Bowling Green State University, and his research focused on the effects of radiation and chemical mutagens on the genetic material of *Drosophila Melanogaster*, commonly known as fruit flies. A group from Bowling Green State University came to the hearings to testify in opposition. Opposition to the building of the plant was based on the fact that tons of radioactive waste would be generated in order to produce electricity. At that time, planning for the long term containment of the radioactive waste was to be done in the future. We now know that we still do not have any methods approved for the long term storage and isolation of the tons of spent radioactive rods and other radioactive material that is made during the mining and processing of the fuel.

This material will be dangerously radioactive to humans and other living things for hundreds of thousands of years. To put that into perspective, we will be starting on the year 2011 of the common era on January 1st.

Davis-Besse has proven to be one of the most unreliable plants in the

24-1-RW

24-2-OS

Commenter: Davis Ellison

U.S. as other people have testified here. FirstEnergy has been very negligent in maintaining the safety of the plant. Renewing the license of this aging facility will place the population of northwest Ohio and probably parts of lower Michigan in great danger.

24-2-OS  
continued

As a very senior citizen, I would like to encourage the members of the audience who are opposing the relicensing of the plant to keep fighting. It can sometimes get discouraging, but the opposition that was mounted to the original building of nuclear plants in the 1960's and 70's did result in enough added expense for the electrical industry to put a halt to the building of new plants, although Davis-Besse was approved.

24-3-OL

Originally nuclear power was touted as power that would be produced so cheaply that it would not even have to be metered. Now we are being told that it will solve the problem of pollution generated by using fossil fuels. We will be replacing carbon problems of pollution, generated by using fossil fuels, with problems of radioactive pollution for which there is no cleanup but time. (Applause)

24-4-RW

Ms. Rios

Thank you, Phyllis. Okay, our next speaker is going to be David Ellison from um Cleveland.

Mr, Ellison

Good Afternoon. I'm going to try and make a few remarks before my voice completely goes out. My name is David Ellison. I live in Cleveland. I'm an architect. I just finished a race for the newly created Cuyahoga County Executive, a position that replaces the three County Commissioners in Cuyahoga County.

I ran on the Green Party ticket because this year was the first year that the Green Party was actually on Ohio's ballot, and uh if there was better representation from either the Republican or Democratic parties we

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might not be having to have this hearing today.

Um the uh. Some people may remember me from the early 90's. I know at least Mike Leonardi was here in the room. There he is! That's when we fought off the whole proposition to build a low level radioactive waste dump here in Ohio. I'm sorry I wasn't here in the 70's to resist against the Davis-Besse, but if I lived in Ohio then, I would've. Um.

25-1-OL

We need to broaden the idea of what environmental consequences, environmental impact means when it comes to nuclear power and something like Davis-Besse, and other people who have spoken here today have done a better job at talking about what specifically those.. the common definition of what environmental impacts might be. But I'd like to say something about the political environment that that is affected by the operation of nuclear power plants and Davis-Besse and the NRC in Ohio at this time. In relationship to the Davis-Besse relicensing, the potential licensure of a plant down in Piketon a new power plant that our Democratic Governor invited in to this uh situation that Kasich will probably go right along with and that is the credibility and the competency of something called the Nuclear Regulatory Commission.

And Uh. Already while the residents of this area would be most directly affected by the power plant, Cleveland is not that far away and the NRC should have solicited input from people from a broader radius around the power plant including Michigan and Indiana. Because what we've found from the Chernyoble accident is that radioactive waste doesn't stop at municipal boundaries or national boundaries. And the environmental impact is much broader than how some fish that get caught in an intake pipe or the other kind of more immediate sort of environmental impacts that people might think of.

25-2-LR

The fact that the NRC didn't hold multiple hearings on this is a problem, but they shouldn't and I'm speaking directly to the NRC at this point. The NRC shouldn't take as the expression of the people of Ohio the testimony of just those people who attended the hearing on November

6th or 4th or whenever it was right after after election day. That the people that are economically benefitting from the conduct of FirstEnergy by the operation of that power plant whether it's through their jobs or through charitable contributions, that is not a legitimate expression. We have a political problem in this country of disengagement and alienation and generally, the government and its regulatory bodies are treated with contempt by the mass media. And a culture of contempt is built among the people for our government and for the mechanisms that we as people use collectively to monitor things like the banking industry or the nuclear industry. It's not to our benefit that that is happening, but it is. So that small group of people who testified in favor of this relicensing is not a complete or an inclusive representation of the people that are concerned with this. And I would suggest that most of the people that are concerned with this are disengaged and are not paying attention. And the credibility of the NRC is at stake.

25-2-LR  
continued

When it comes to evaluating power plants for relicensure, this power plant is one that should be denied relicensure on the grounds of its past performance. It hasn't performed well enough to bother relicensing, and it should be taken off line.

25-3-OS

We should come up with energy conservation and efficiency measures that replace that 8.3%. Forget creating any alternative fuels or advanced nuclear. Just energy in energy conservation efficiency alone, we make up for this. The system that requires that we maintain the amount of consumption that we currently have uh as part of the licensure relicensure application is absurd because so much of the future depends on our reduction of and our conservation and our efficient use of energy. It's absurd to perpetuate the existing system.

25-4-AL

So when and if there's a problem, when and if they relicense Davis-Besse, their credibility notches, ratchets down. Already the public is disengaged and doesn't have a lot of respect or a lot of confidence in the over all system. We saw at Chernyoble when you take 800 people from around the Soviet Union, and you put them to work

Commenter: Michael Keegan

cleaning up that mess and then send them all back home, it doesn't take long for the competency and the credibility of the federal government to fail to exist. And what we have now is a much different government and a much different country in the former Soviet Union than existed prior to the Chernybole accident. And I propose that it was that evidence of incompetence in the government that ultimate, through exhibited through their reaction to Chernybole that eventually to their collapse.

And economically, as we all know, and others have testified to, nuclear power does not make economic sense. In as much as our economy is the management of our household, I think it relates directly to the ecology of our household or our State or our community here, and that ecological system that we are all part of and that this nuclear power plant and the NRC and the other governmental leaders and the other citizens that aren't here, that ecosystem is very much a part of the environment, and any hearing that focuses on environmental impacts has to include all of that as the one ecosystem or environment that we're in.

25-5-SE

And uh I think that will be about what I have to say. Thanks for listening. (Applause)

Mr. DeMare

Alright, Thank You. And uh next up we have Michael Keegan who um was one of the people, who along with Anita and Kevin and myself, one of the main people who planned this event and brought it all together. So come on up, Mike.

Mr. Keegan

Thank you, Joe.

We are...My name is Michael Keegan I'm with the Coalition for a Nuclear Free Great Lakes and I'm also with the organization Don't Waste Michigan and Davis-Besse is just about 15 miles from Michigan,

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obviously.

We are blessed in that we live in 20% of the world's surface freshwater here in the Great Lakes the most precious resource on the Planet. Without it life is not possible. And yet we have a nuclear power plant that has an abysmal record, Davis-Besse. But I'm here to tell you that it's not about the generation of energy. It's about the concentration of wealth and power. Political economy.

26-1-OL

We've heard that there are several alternatives to Davis-Besse. Replacement power is available now. Could be generated much cheaper. It is about the consecration of wealth and a cartel of the utilities that like the monopoly status that they enjoy, and they are locking out the people. It is not power, not energy for the people. It is power and political power against the people.

26-2-LR

We looked at the Davis-Besse in 2002 and we saw the hole in the head the size of a football, ate through six inches of carbon steel down to the stainless steel liner which was now bulging through that hole and started to show signs of cracking as well, 3/16ths of an inch. And the NRC came in and said, "Well there's got to be lessons learned here. We're going to learn lessons and we're really going to put the thumb, put the foot down and things are gonna, got to improve. We won't allow a relicensing, a reopening of the plant without proper scrutinization." A series of meetings, dog and pony shows, were held, and the last one was, "Wow, they really turned it around. They really surprised us and turned it around. Doing a good job and we're going to allow them to put on this compromised lid that they got from the Midland nuclear power plant and operate."

26-3-OS

And six years later, we learn, I think this past March, We learned about the cracks in the control rod mechanisms. And the lessons that I learned are that the NRC is incapable of learning lessons.

The reason Davis-Besse did not shut down to examine the head back in

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2001 when the NRC had told the entire industry that they must all shut down and inspect, the utility, FirstEnergy, pushed forward because it was profit over safety, production over safety. And the NRC promised us that would not happen again. But, lo and behold, now we see again a compromised lid at the Davis-Besse plant. And, once again the NRC allows production over safety, profit over people.

26-3-OS  
continued

So the lesson I take out of this was I learned that the NRC is incapable of learning lessons. As mentioned earlier, they are indeed a rogue agency. This past week, the 61st nuclear power plant that had applied for relicensing was relicensed. They are now batting 1000%. 1000, Batting 1000. 61 for 61 on relicensing applications. So, the NRC has not a shred of credibility with the public, and they are there, running interference, keeping the people away from confronting these utilities when they run these abysmal plants.

26-4-LR

Earlier this week I got a e-mail from a woman who lives near Fermi nuclear power plant, and she shared with me a story about living next to Fermi, in the shadow, and all her neighbors having cancers, leukemias, thyroids, early deaths, lymphomas and that this is epidemic through that area. I've spoken with a number of health care persons over the last year who are very concerned about the cancer rates in the western basin, the horseshoe around Lake Erie beginning from down river area which is north of Monroe right through Sandusky area.

And in fact there is a cancer cluster near Clyde, Ohio which is about 15 to 18 miles as the crow flies from Davis-Besse. So, the comment that I have on Scoping is that I am requesting that baseline epidemiological studies be done. And that we explore what is coming out of that nuclear power plant. They are allowed by licensing to release gaseous, liquid from the plant. Below "permissible" levels. But there are cancers over in Clyde, and families are decimated. And I would request that baseline epidemiological studies be done in the entire region.

26-5-HH

Earlier again, this week, I got several documents from Connie Klein

26-6-HY

who was one of the intervenors at Davis-Besse on the first Operating. And she shared with me photos of the flooding of the Davis-Besse in 1972. This was during construction. The entire site was flooded for two to three weeks. Um I have concerns about the Davis-Besse flooding. As you all know Lake Erie is very shallow. The western basin is very very shallow, and it is subject to something called a seiche where the wind blows out the water, blows it east. Then the water comes back, like a bathtub, and floods the western shore. I'm concerned about the potential flooding of that Davis-Besse Plant.

26-6-HY  
continued

In addition, it was mentioned earlier that there were Tritium leaks in 2009. There was also a Tritium leak in 2008. The grounds are contaminated. I'm concerned about the buried piping at the Davis-Besse plant, about the leaking of Tritium, about the potential of flooding externally, the potential of flooding internally at the Davis-Besse plant. This is an aging plant. And with that Tritium leak and as you run a nuclear power plant into the ground, which is being proposed, another 20 years there are going to be increasing leaks, increasing contamination.

26-7-HH  
(HY)

So I'm requesting that the NRC, my comments of Scoping are such that there needs to be an increased decommissioning fund for the next 20 years that they're proposing. That there needs to be a mechanism put in place that comes out of their bottom line, not the ratepayers. Because the more, and longer they run that plant the larger the cost of decontaminating, decommissioning will be. We saw this phenomenon over at the Yankee, the Vermont-Yankee plant. The decommissioning costs are soaring there. There's not enough money that's been set aside to decommission the plants properly and the longer they run, the higher the price tag goes for decommissioning.

26-8-OS

In addition, a scoping comment I have is the thermal pollution coming off the nuclear power plant. It's about a thousand nine hundred, about nine hundred megaWatt facility. That's close to three thousand megaWatts of thermal heat coming off of that. And, as we've seen, Lake

26-9-AQ

Erie is beyond the tipping point when it comes to algal blooms. We are beyond that point. We have several facilities in the western basin of Lake Erie; several coal plants, and several nuke plants and the Lake cannot take the load.

So I am requesting that the algal blooms that are occurring on Lake Erie, the *lyngbya wollei*, which is a toxic algae--it's leading to the eutrophication of Lake Erie, the death of Lake Erie, I am requesting that this concept of algal blooms be investigated, and thermal pollution from the nuclear power plant be considered.

26-9-AQ  
continued

In years past, about five years back, we challenged the nuclear power plant, the Pallasades on their relicensing. They made several promises to the Advisory Committee on Reactor Safeguards. They made promises that they would upgrade equipment, that there would be replacement on major components. They have not done so. With that promise, the NRC, the regulator, allowed them to relicense. They have not done the work since. The plant got sold to an Entergy Company which has now ten nuclear power plants that they basically buy like used cars and run them into the ground. They do not do proper maintenance, the proper repairs. These are limited liability companies that once they have a major accident, they will walk away and leave the public to with the clean up.

So, I do not have confidence in the NRC to force about proper equipment, maintenance. Perpetually, there are exemptions that are requested and just as a matter of rubberstamping--the Nuclear Regulatory Commission, the Nuclear Rubberstamp Commission, allows them exemption time after time. Again. Production over safety. Profit over people.

26-10-LR

In addition there is a IFSC, IFFSC. It's dry cask storage of high level nuclear waste. High level nuclear waste is currently stored outside at the Davis-Besse. This has a.. there's..No one wants this nuclear waste. Yucca Mountain is not going to happen. It's not geologically sound. It's not scientifically sound. It's not going to happen. Nobody wants this

26-11-RW

Commenter: Ralph Semrock

stuff. Yet, the NRC runs a con game. They have "confidence" a "waste confidence" decision. It is a con game. They're asking the public, the folks of Toledo, of Ohio, "Please accept our promise to take this waste at some point. We don't know what to do with it just yet. But, we'll figure it out later on. But, in the meantime just let us go and make more."

It's been said that nuclear power is the gift that keeps on giving. It keeps on giving the radioactive waste, and the power is fleeting. But we are left with the deadly lethal legacy for tens of thousands of years. Now we've got to stop the production of this material, and I say do not relicense this and the plant should be shut down immediately. Thank You. (applause)

Mr. DeMare

Okay, alright, next up is Ralph Semrock.

Mr. Semrock

I'm Associate Professor over at Owens. And, um It's very interesting. I'm so glad to see a lot of people here, and I want to thank Joe for um inviting me. Um my wife, Lee, and I, we live 12 miles from Davis-Besse. Out in Ottawa County.

And I was one of the few people, I guess, that actually took one of four tours they had back in 1977 when it was opening. And, I don't know how many of you have been able to take a tour through there, but the word "awesome" is so often over used. It is truly awesome to see the extent, the scope, the size of the systems that they're talking about.

I remember, just what you said [pointing to audience member] the lady here in front, the tour guide said, "The power is going to be so cheap, they won't be able to meter it." We all wondered about that, in awe.

Of course, it's been anything but that. And um, I guess the thing that

} 26-11-RW  
continued

} 26-12-OL

} 27-1-OS

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irritates me, I teach CAD, I'm more technically involved. Um and what really irritates me when I look at the history of their um operating procedures is that they cared so little for safety, as the previous speaker indicated. And the fact that they cared so little that, um to the point when this terrible pineapple, football sized hole occurred, they should have been monitoring that. The engineers should have been monitoring that. And yet, I'm quoting now. It says, this is from *The Cleveland Plain Dealer*, "For more than two years, the radiation detectors at the Davis-Besse nuclear power plant insistently signalled that something was wrong inside the reactor that houses the reactor." It says, "Although they suspected a coolant leak somewhere, Davis-Besse personnel couldn't find one. So, instead of pursuing the cause, they moved the monitors' intakes to a different spot. So that they don't get these signals. But finally, they even bypassed one of the device's three sensors because it kept triggering alarms and they didn't want to listen to it anymore."

That just scares the heck out of me, because as we've all seen with Chernyoble, this is going to continue for a quarter of a million years. At least over there. And, as close as we were, they cared so little about safety, and all they cared about was keeping the plant running.

Now what further irritates me is that, when they finally did open it up in 2002 and found this hole at the site, even Babcock-Wilcox, the manufacturer of the plant, recommended to them "You shouldn't replace the head." And um. Because the one that they got from the middle of Michigan had the same, poor quality alloy, steel in the control nozzles that are welded on to the top of the reactor head for where the control rods go down.

It had the same steel! As what was made originally. Davis-Besse had ordered a replacement head from Europe, but it wasn't going to be done until 2014. Well, they didn't want to wait twelve more years. It was back in 2002. So what'd they do? Go get the one that wasn't quite finished from Midland Michigan. And bring that down. Against Babcock-Wilcox's advice, they put it on.

27-1-OS  
continued

So guess what? They're seeing the same cracks as was mentioned before. The same cracks with the lower alloy quality steel, around the openings, the nozzles. And they're having trouble. And they're having to repair those expensively and when they dye checked them, after the repairs, they're still finding a few leaks.

This is what we have to look forward to, because they *did not wait to do it right*. If they were going to replace it. The one that they're supposed to get in 2014 has the higher quality alloy steel that can take the heat, four, five hundred degrees and 650 pounds per square inch pressure. But no, they won't do that. They had to get it in now. They had to spend \$220 million doing it. So now, this is what we have, six years later, eight years later.

And they said that... This is very interesting to me. As other people have mentioned, you can't trust the NRC. I certainly don't trust them. But as they said back in 2002, all misinformation and the cover ups that FirstEnergy did to the NRC, they said that that was the worst in the nuclear industry in America. The worst!

And then they make a scapegoat out of the engineer who was a whistle-blower. And the NRC, I don't know if you... I did some research. I didn't know it but I found out that they banned him from working in the nuclear industry for five years. The engineer! Did they do anything to the people above him? No. They still have their jobs. Maybe FirstEnergy fired a few, I don't know. But they blamed it on this guy. Like he was the sole cause of this horrible, potentially horrible, accident. Really. Really. One person.

That just amazes me. That right there that just loses the credibility right away. Now. They want to license it for another 20 years. Do you know why? They want to get their money back from the head that they put on, obviously. But, assuming they can even get that working correctly, and safely as mentioned previously again, what about all the other

27-1-OS  
continued

Commenter: Mike Leonardi

equipment? All the other, the piping, steam generator, everything?  
What's going to happen for another 20 years with that?

They have a miserable record. They do not care about public safety.  
They say they do, but their actions speak differently. The very fact that  
they tried to cover things up speaks differently. So.

And the fact that after the accident and everything after 2002, 2004 and  
into 2005 the NRC had this wonderful policy, making potassium iodide  
pills available to everyone. Within a ten mile radius. They were  
contacting all the pharmaceutical, all the pharmacies, to make sure that  
you could get, you'd get a coupon in the mail. And, then you'd go to the  
pharmacy and get your two pills. To help you. In case a...what did they  
call it euphamistically?...an "incident" happened. An incident.

27-1-OS  
continued

That pisses me off. So, I just agree that they should not get relicensing  
whatsoever. They have done the *worst* job in managing this plant. They  
*do not* follow good engineering principles. They're making the same  
mistakes all over again. They should be shut down permanently, and  
they should not be relicensed. Thank you. (applause)

27-2-OL

Mr. DeMare

Alright, we just have one more speaker, and then I'll have a few,  
concluding comments, and then this official People's Hearing will be  
done. But right now, we'd like to hear from Mike Leonardi.

Mr. Leonardi,

Good afternoon, everybody. I've been living in Italy for about nine  
years since, um...I remember just before leaving we organized a  
demonstration to shut Davis-Besse down. It was in a park in the shadow  
of the uh um plant. A few years before that we organized the Zebra  
Mussel Alliance, taking the name from the mussels that had clogged the  
intake valves, to try to shut down Fermi II nuclear power plant. We were

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successful in shutting it down for a day.

My wife who's from Naples, Italy (indicated on this map right over here). You can see. Italy is one of the only countries in Europe that is nuclear free. And the reason why it is nuclear free is because they voted by citizen's referendum in 1994 to not allow the generation of nuclear power within the country. Um It did have nuclear plants, before.

Where I'm coming from most recently is in the South of Italy, Calabria. A region in the south where there is no industry to speak of. There were textile mills that are all shut down. Other than that, there are no um major industrial plants of any kind. It's a rural, agricultural area.

Along the river valley in Calabria called Fume Oliva, the river Oliva that flows directly into the Mediterranean Sea -- a beautiful coastline. They found Cesium-137. Nuclear waste. High level nuclear waste. It can only be found in nuclear power plants.

This was brought there and dumped illegally by a network of Mafia and State governments that have used the south of Italy and the South of the World as a virtual dumping ground, a real dumping ground, of high level radioactive and hazardous wastes.

In Basilicata, which is a region right to the north of Calabria in the south of Italy, they discovered that there are high level radioactive wastes, spent fuel rods, from a nuclear power plant in the United States. I believe the nuclear power plant is called Falls Creek. But, I'm not sure. I can't be sure of this. And it's stored in Basilicata in the South of Italy. So under the Nuclear Regulatory Commission's so called "watch" high level radioactive waste has ended up in the South of Italy. From the United States. Italy which doesn't have nuclear power plants. Basilicata which does not have a nuclear power plant. It has a mothballed plant.

I would go farther than to say the Nuclear Regulatory Commission is a "rogue" organization. I would call it a "terrorist" organization. And I

} 28-1-HH



would say that the cancer that people are suffering from in Clyde, Ohio, I know that Lucas County, when I left ten years ago had the highest cancer rates of the State of Ohio. We're all facing cancer as our future. And this cancer, I would say is on the most part, is on the hands of... It's a legacy of industrial capitalism, but this cancer is on the Nuclear Regulatory Comissions hands because they have done nothing to police or regulate or control this industry. It's disgusting, it makes me sick to my stomach.

28-1-HH  
continued

When I tell people stories about living between Fermi II and Davis-Besse, they think of Toledo as something out of "The Simpsons" a popular TV show in across the world, and that's how they imagine it. It's like a colonization of the people's minds that live here, as well. There is this disengagement. The people don't have time to think in this, you know...

I was listening to public radio the other day and they were talking about how they felt like "the Rust Belt" was kind of offensive terminology to use for this area of the country. And the thought crossed my mind well why not "The Cancer Belt" instead? Because that's the number one killer in this area. So, if the "rust belt" is too nicey-nice. You know, they want to consider it the "water belt" but the "water belt" is contaminated.

28-2-HH

I was hearing on NPR a couple days ago, too, Mike Keegan, and I'm pretty sure there's something going on. They said that there was a low level radioactive waste leak from the Fermi II nuclear power plant. They interviewed some guy that representeing Fermi saying, "Oh yes. It was just a minor leak into the water supply. We can guarantee that it won't happen again. We're sure that there's not going to be any releases that are gonna endanger the public in the future." This is what we were trying to shut Fermi II down about, what fifteen years ago, twelve years ago. The same radioactive releases that they were doing then.

I want to thank Tom Henry and his work at *The Blade* because I've been following the situation at Davis-Besse like a horror story from Italy.

Commenter: Joseph DeMare

And, you know, I'm really happy to be back. And I want to also say that *The Blade* when I was talking to John Robinson Blach years ago, he suggested doing something that I think that we might try to do. Which is to do a maybe in cooperation with the urban affairs department at the University of Toledo and the sociology department is a scientific poll of the citizens of northwest Ohio, Ohio in general, get their options on nuclear power. For Toledo, it might just be the Toledo residents. John Robinson Blach was quite confident that the majority of people would be opposed to nuclear power here, especially having watched the story unfold in the paper. Even though I don't think that the majority of the people read the paper anymore. But, it's something worthwhile doing. I think that the majority of the citizens are opposed.

I don't have any faith in the Nuclear Regulatory Commission to do anything about the issue, but, thanks. That's all I have to say. (applause)

28-3-LR

Mr. DeMare

Alright, well, I just have one or two things to add to all the excellent comments and observations that were made here all afternoon.

I want to thank everyone here for having the patience to sit through the process, and for having the patience to keep dogging this industry for more than forty years. Because without that dogged opposition I'm confident, I'm certain that by now we would have had at least one nuclear power plant melt down. Um you know, as hard as it is, I believe that environmentalists have prevented disasters from occurring.

We haven't done enough. We haven't killed this monster yet. But, I think I had hopes that it would die a natural death. That as each plant reached the end of its operating license it would simply be pulled off the market for economic reasons. Now they're trying to give us undead nuclear power plants. Nuclear zombie power plants.

14-18-OL

I have just a few very quick observations. First of all I've been asked to

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Commenter: Unidentifiable Woman,

tell everyone my e-mail. Especially if you made comments and if you have a written version you can e-mail me for inclusion in the submission to the NRC. My e-mail is electricity2.. That's the number 2 as in you know, other electricities. electricity2@cs.com. "C" "s" That's short for compuserve. Oh question, Yes?

Unidentifiable Woman

Um. I just wanted to. All the comments that this is going to be played um in front of a panel. The comments recorded.

Mr. DeMare

These comments will be submitted to the NRC, and the other thing I wanted to tell everyone is that I'm going to take the film and the video that we've made and create a compilation of it, and I'm going to have it available. I'm going to put it on TransferBigFiles.com, and I'll send e-mails around to interested people so that they can download it and review it. Because there's been a ton of information. I know I haven't absorbed it all. I've tried my best but, uh. There's been a lot. Yes?

Unidentifiable Woman

I just wanted to know, um, I don't know if we have a scientist here or anyone from the Lake Erie um I'm so sorry. But the Lake Erie um

Mr. Compaan

Resource Center?

Unidentifiable Woman

Resource Center and talk about the rise in microcystine levels due to the thermal pollution. And how that. I mean are they aware that did anyone comment on that

} 29-1-AQ

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Mr. DeMare

Yes...

Unidentifiable Woman(Interrupting)

Are they aware! That did anyone comment on that for them.

} 29-2-AQ

Mr. DeMare

Yes we've had comments on Microcystine.

Unidentifiable Woman

levels.

Mr. DeMare

Levels.

Unidentifiable Woman (Interrupting)

I mean I know that inadvertently...

Mr. DeMare (Interrupting)

If you have questions maybe you could ask Anita...

Unidentifiable Woman (Shouting)

It's not a question! I just want the panel to know that inadvertently when people start dying or getting sick because the levels occur. Is there any way that they could possibly be held responsible or get sued?

} 29-3-HH

Commenter: Joseph DeMare

Mr. DeMare

Well that's a good question. I hope so. (laughter) And I don't know the answer. Um if you have...

Unidentifiable Woman. (Interrupting)

Because there...

Mr. DeMare

If you want want to ask, if you want to ask what we've been over for the last three hours...

Unidentifiable Woman.

No they don't. I just wanted to make sure that someone said that to them. And realize that the microcystine levels are are rising.

} 29-4-AQ

Mr. DeMare

Yes. Someone has said that. Tony Szilagye mentioned that in his comments.

Unidentifiable Woman

I'm sorry. It's like I just mention

Mr. DeMare

Now another question from the back. Oh. Ok. Well. Um. Actually. Let's see. I think we're reaching the point of winding up here. So. Um.

Something else I just wanted to mention that Tony Mangano, Anthony Mangno has pointed out that thyroid cancers in Ottawa County, right

} 14-19-HH

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Commenter: Kevin Kamps

around the plant, went from below the national average before the plant started operating to above the national average now.

And, in fact, research says that cancer rates, thyroid cancer rates particularly, just about double when you put a nuclear power plant in.

So, Iodine, radioactive iodine is very rare. Thyroid cancer is very rare. Pretty much you can count on the fact that those people who are dying from thyroid cancer are dying because of radioactive releases from the plant. Radioactive releases that are casual, that are average, that are "normal," part of their normal operations.

So, people are dying. They're in the hundreds now. If we keep doing this plant and radioactive thyroid, uh. Iodine, radioactive isotopes of Iodine stay radioactive for 20 million years. So the more we generate the more we'll be. People will die from the cancers caused by this radioactive Iodine. They're in the hundreds now. Another 20 years they'll be in the thousands.

So what we are trying to do here is prevent thousands of people from being killed by an unnecessary form of energy. We've heard testimony here today about just exactly why that's so unnecessary.

So, I wanted to thank everyone here for keeping up the fight. And um I think Kevin has one more comment about the next step would be after this comment period is over. We'll submit comments. But after this is finished then we're going to have interventions. Once they grant the license. We're expecting they'll grant it. We'll be able to perhaps put in one last line of defense to stop this monster. Let it die a natural death. So, here's Kevin one last time.

Mr. Kamps,

Thank you again for organizing this Joe and Anita really appreciate it. Thanks everybody for coming out today to come out.

14-19-HH  
continued

14-20-OL

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So on this intervention deadline, we face a December 27th deadline to file our contentions, our intervention against the 20 year license extension. It's also the deadline for environmental scoping comments.

Umm.. the um *Federal Register* Notice appeared on October 24th. They have a very short window of Intervention opportunity of sixty days which fell on December 24th which is an official holiday, and the technical rule is the next business day. That becomes the deadline. That's December 27th. So, it's an indication, gives you an idea of how brutal the NRC's process is. That extends right into the technical requirements of intervening.

One of those is to obtain standing, and that's the main thing I'd like to talk about. Anyone who lives within 50 miles of Davis-Besse could, almost automatically, receive Standing to be a Party to this proceeding. And it's important for a group like Beyond Nuclear. We do not live that close, we're about 500 miles away. So for us to enter a contention and get standing, we're gonna need supporters in the local area. And if you're a member of another environmental group you could encourage that group to join with Beyond Nuclear and become a Party to the proceedings as well.

So if you are interested and you do live within 50 miles, please afterwards come see me. I'd love to get your contact information. We can discuss it further. You don't need to decide today.

It's a simple form; it's a one sheet form. We already have the language. Not with us; we didn't have enough time to pull it together. But we've used it in other proceedings like Fermi III, like Pallsades, and all you have to do is agree to it. It gets you individual standing, and it also gets organizations standing. We can actually file this paperwork in time.

And, um just to close, I would like to say that Italy was mentioned, and I took a lot of inspiration several years ago from (if I pronounce it

correctly) Scanzano, Italy where Berlusconi came out of the blue and said, "We've figured out where we're going to put all the nuclear waste. We're going to put it in Scanzano." Just announced it one day, and within couple weeks, there were hundreds of thousands of people in the streets: blocking the train tracks; occupying the site that was targeted; and um two weeks later, Berlusconi said, "Well, we're going to study it some more." (laughter from audience) He reversed himself.

In Germany, what I was getting to here, in Germany the Angela Merkle Government has reneged on a ten year old agreement called the "nuclear consensus" that the Social Democrats and the Greens prioritized to phase out nuclear power plants at the end of their operating licenses. And so, what Merkle has done is to push for extensions at certain of the reactors. Just like as proposed at Davis-Besse. And what this has led to is just incredibly large protests in the streets.

Several months ago, 120,000, 150,000 people formed a human chain between two nuclear power plants. It stretched 75 miles long. More recently, a few months back, about 100,000 people in the streets of Berlin, protesting the license extensions.

Then most recently, there's annual protests against radioactive waste shipments to um they call it a "centralized interim storage site." A warehouse which is right next door to a targeted deep geological disposal site. What a coincidence, Ha! And every year there's protests. I was there in 2001 there were 10,000 protestors 15,000 police.

So, it takes police state tactics to move a few containers of waste. At a huge cost. We're talking \$100,000,000 for one of these shipments. And this past protest was 50,000 people.

So, I just wanted to leave on the hopeful note that, in other places where license extensions are proposed there are huge groundswells of opposition. So, inspiring stuff. Thanks. (Applause)



Eric Britton

If it helps anyone, we have space at the Perrysburg library reserved for the first Wednesday night in January. For a follow up meeting.

Ms. Rios

Okay, that's the first Wednesday night in January. If we have your e-mail address you'll get that in the e-mail. That's the Sierra Club. Okay  
Thank you for everyone. (Applause)

Mr. DeMare

And if anyone is concerned about the issue of transporting nuclear wastes across the Great Lakes, Ed McArdle is....

(Unintelligible)

59

Commenter: Suzanne Patser James Whitaker

Suzanne Patser

Hello my name is Suzanne Patser and I live in Columbus Ohio and I'm very concerned about the Davis-Besse plant coming back online. I can't think of anything that would be a worse idea for our state.

31-1-OL

I believe that we have plenty of electricity. We do not need to bring this power plant back online. I don't care how many jobs you think it might create or how much you want to justify the expense of building the plant to begin with but nothing is worth the lives of the people that are going to live near that plant and all of us because it's going to affect everybody if there was any type of accident.

31-2-OS

I know there is always just radioactive leakage anyway that we aren't even told about.

There are so many other clean ways to provide energy. Wind Solar geothermal there is no reason to bring a nuclear plant online. There would have to be some other agenda involved we hope that is not military agenda. But we know that we don't the electricity from that plant in this state.

31-3-AL

And we know that it had a hole in a very vulnerable spot earlier. We don't trust the people that run these type of plants that the safety is there and regardless if it takes a million years to get rid of radioactive waste how is that a benefit to anybody and human kind or on this planet.

31-4-OS

So I am absolutely 100% against any nuclear plant opening anywhere. It is not the type of energy that our country needs, our state need, that Toledo needs that anybody needs that lives or works in that area.

31-5-OL

James Whitaker

Hi my names is James Whitaker and I'm from in Columbus Ohio and as far as the creation of more radioactive waste here in the state of Ohio I don't think we need to do that I think that the any of the fuels that we have as far as fossil fuels is adequate if it's done properly. But I certainly don't want to create more nuclear waste.

32-1-RW

Commenter: Scott Robinson, Simone Morgen, Emily Journey, Bob Patraicus

Scott Robinson

Hello my name is Scott Robinson from Worthington Ohio and I'm opposed to the relicensing of the Davis-Besse nuclear power plant. Thank you.

33-1-OL

Simone Morgen

Hi my name is Simone Morgen I'm a Columbus resident and I just want to say that a facility such as Davis Besse that has had numerous failures cumulating in that lovely hole that endangered people with a possible meltdown has no business having a renewal without stringent oversight if it should have renewal at all.

34-1-OS

It puts people in Toledo especially in danger and could possibly extend as far south as Columbus. So I really do not think that this should be renewed.

34-2-OL

Emily Journey

I'm Emily Journey and I'm from Westerville Ohio. I'd like you to know that I do not support the relicensing of the Davis-Besse Atomic reactor.

35-1-OL

I believe we should be going in different directions when it comes to supplying energy to our communities. Direction that is not destructive that can provide new green jobs. Thank You.

35-2-AL

Bob Patraicus

Hi my name is Bob Patraicus, I have a PhD in political Science. I am a JD. My concerns with Davis-Besse begin with the obvious. There has been contamination. Radioactive contamination at that plant in the past it continues to occur.

36-1-RW

Moreover the entire process of mining transporting and allowing radioactivity as a fuel source is inherently contaminating.

It is located there on the great lakes, the largest clean water source in the world and it seems extremely dangerous and unnecessary since there is other alternative fuel sources to allow for Davis-Besse to ever be reopened with its incredibly bad history safety history with its dome.

36-2-AL

36-3-OS

Commenter: Bob Patraicus, Kevin Malcolm, Doug Todd, Connie Hammond

Bob Patraicus (continued)

So because of the ongoing contamination and the inherent nature of the radioactive contamination in the process of it being mined and transported. I would like the commission to look very closely at this and do what we all know is correct and keep Davis-Besse closed.

36-4-OL

Kevin Malcolm

Alright. I'm totally against the nuclear power. I just I'm an old guy and I've been around for many years and I know the history damages that it can cause and I'm really opposed to it. That's why I'm on camera here. That's why I'm on camera and I will do whatever I can to support the cause against it. The actions, take actions against it. That what all I got to say. Thank you very much.

37-1-OL

My name is Kevin Malcolm Jones originally from Cleveland Ohio but I've been here in Columbus for 6 years.

Doug Todd

Hi my name is Doug Todd I'm from Columbus Ohio. I'm very concerned about the Davis-Besse Plant. From what little I know the most recent containment failure a few years ago was a result of lax inspection. I'm aware that FirstEnergy had requested a delay in inspection on the plant. And it was this delay that almost led to the containment break down which would have been a Chernobyl type disaster for Northern Ohio. By all means please do not approve the relicensure of Davis-Besse. Thank You

38-1-OS

38-2-OL

Connie Hammond

My name is Connie Hammond I live in Columbus Ohio. I'm a member of the Sierra Club nuclear issues committee and the Ohio Green party. My primary concern is with the toxic legacy that we are leaving for our Children and Grandchildren. Beyond the obvious radioactivity and pollution that these plants produce.

39-1-RW

The process of production of nuclear energy from mining through disposal of waste is very carbon intensive and would contribute heavily to global warming.

39-2-AM

Commenter: Bernadine Kent, Unknown, Pete Johnson

Connie Hammond (continued)

We need to invest our money into green technologies that would create job and also help our economy which is leaving the toxic legacy for our children as well as these nuclear power plants.

39-3-AL

Davis-Besse is not a safe plant it has a very bad track record and the Nuclear Regulatory Commission has been lax in its inspections. I really am concerned I'm very disconcerted for the future of our children and future generations in terms of the toxicity and global warming. Also we don't need this energy and it is just not a good way for our country to be going. Thank You

39-4-OS

39-5-OL

Bernadine Kent

My name is Bernadine Kent and I'm from Columbus Ohio and I have been informed of the Davis-Besse power plant in Toledo. I'm concerned about this plant extending their license for the next 20 years. To me that doesn't make any sense especially since they have problems.

40-1-OL

Rather than extending the license there should be some type of investigation or some kind of attempt to resolve these problems instead of just saying ok for the next 20 years these problems can continue. So my concern is that anyone that anyone that would allow this license to continue is not acting in the best interest of the citizens.

40-2-OS

Unknown

I wish to join the wave of the future. Which is alternative energy sources. Fossil fuels and nuclear energy are part of the past.

41-1-AL

Pete Johnson

My name is Pete Johnson I'm associated with the Columbus free press and citizens alliance for secure elections and I'm definitely opposed to relicensing Davis-Besse.

42-1-OL

It's dangerous, it's been mismanaged for a long time and I'm definitely opposed to the relicensure of Davis-Besse. Thank you. I live in Franklin County, Ohio.

42-2-OS

Commenter: Constance Gadwell-Newton Esq

Constance Gadwell-Newton Esq

This is Connie Gadwell-Newton I'm an attorney. I'm active with the Ohio Green party and I wanted to express my opposition to the relicensing of Davis-Besse for 20 years.

Basically I mean I've heard a lot of the science about it and I can't really say a whole lot about that. But what I can say is that you know it's going to be relicensed supposedly for 20 more years and that would be to 2037, I believe, so I'm opposed to the relicensing of Davis-Besse because I think it's a youth issue and basically this is an important youth issue its important to the young people who are not allowed to vote and be politically active and children and the future generations. A lot of the people who are working to relicense this nuclear facility are going to have died of old age by the time its finished and then when it's finished we are going to need to worry about cleaning it up keeping it in repair and I don't think that people are really looking ahead to the future and considering you know the work that going to be involved to make sure that its safe.

43-1-OL

Nuclear waste and radioactivity has a half life of gabillion years to put it in kids terminology and you know a lot of the people who are going to be effected by nuclear waste are not even born yet. And So speaking on behalf of the youth, babies, people who cannot speak for themselves. I just wanted to say that relicensing Davis-Besse and using nuclear energy is wrong. It may be expedient so for the people who are only planning on living you know 10 or 20 more years then fine but they don't care if the world is going to be destroyed. But there are people who that effects and I would just urge the people who are making this decision to think of the future generations and to be able to think about somebody other than yourselves really.

43-2-RW

Yeah I want to make a statement on behalf of kids whose environment is being destroyed. There used to be a lot more nature to go to and tromp around in and now kids don't have that we have urban environments that are polluted kids getting cancer because of this kind of stuff and it's really not ok. So this is Connie Gadwell Newton urging you to not renew the licensing for Davis-Besse. Thank you.

43-3-HH

Commenter: Patricia Marida

Patricia Marida

Hi my name is Patricia Marida. I'm the chair of the nuclear issues committee at the Ohio Sierra Club. I gave a presentation before the Nuclear Regulatory Commission on November 4, 2010 as to why the Sierra Club opposes the extension of a license at Davis-Besse.

16-14-OL

Tonight I'm going to give my personal statement. I think that it's well recorded there are 10 pages of documentation of very serious violations and illegalities, and actually nuclear accidents at Davis-Besse. It is the most accident ridden power plant, nuclear power plant in the nation. It is very clear that we have a serious problem here also because the Nuclear Regulatory Commission has been very lax in enforcing Davis-Besse. In fact allowing them to, allowing FirstEnergy and Davis-Besse Operating Company to continue operating the plant when it was supposed to be shut down for an inspection. And the reactor head came within 1/8" of metal left between containment and a nuclear holocaust. So It is very clear that the regulatory and the supervision is lacking were also would like the NRC to be sure to cover the safety issues there, there are many safety issues.

16-15-OL

Apparently when an accident, when there is an alarm there is no response. People say oh that's just a false alarm. So no one seems to get very excited, when an alarm goes off at Davis-Besse.

16-16-OS

We are also concerned about fish and Lake Erie and the heat coming out of the plant.

16-17-AQ

Even more we are concerned about the possibility of contamination of all the water in the great lakes from a reactor accident. This would be a nightmarish...

So the fleeting use of electricity in the past has left us with a legacy of nuclear waste. But However we understand that the nuclear regulatory commission does not have to even consider that when they are deciding whether or not to license Davis-Besse because in the past the Nuclear Regulatory Commission has made a decision that they are not going to, that this doesn't have anything to do with a new license despite the fact that much more of this dangerous radioactivity is going to be stored at the plant there is no solution for it there is no magic solution that will turn lead into gold it will remain radioactive for millions of years and will gradually spread itself around. It is so important for the Nuclear Regulatory Commission to look at issues of the onsite storage and to look at containing and at least in the near future making this waste safe. The new waste is going to be generated there

16-18-RW

Patricia Marida (continued)

really does need to be a plan for isolating it onsite. We are not asking for a plan to isolate it for a hundred million years because we all know that's an impossibility.

We are asking for some sort of a plan working with Doctor Arjune Macajohny of the institute for environmental and economic research in Washington DC, we are asking for you the NRC to work with him and look at some serious ways of isolating this waste in canister that are hidden in bunkers where they are safe from terrorist attack.

16-18-RW  
continued

So this fleeting use of electricity when we don't even need any more electricity. What happened when Davis-Besse was shut down? We got along fine.

16-19-OS

We are closing down Coal plants now because Ohio is actually using less electricity than they used to. We've got efficiency we've got solar we have wind we have geothermal we have all kinds of sustainable ways.

16-20-AL

We don't need more nuclear power and we need to have the Nuclear Regulatory Commission look at whether or not more electric is needed especially the large amount that Davis-Besse produces because we think it could be shut down today we think it should be shut down today.

16-21-OS

Dr. David Lochbaum has sent you a very well documented statement as to why that this plant needs to be shut down now, it is dangerous to operate and the NRC dismissed it out of hand with what Dr. Lauchbaum characterized as superfluous reasons.

16-22-OS



Commenter: Patricia Marida

Nov 30 10 09:26p

Patricia A. Marida

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9/20/2010  
75FR 57299

(1)

Chief, Rules, Announcements and Directives Branch  
Division of Administrative Services  
Office of Administration, Mailstop TWB-05-B01M  
US Nuclear Regulatory Commission  
Washington DC 20555

Fax 301-492-3446

**Docket ID: NRC-2010-0298**

**Subject: Proposed 20-year operating extension for the Davis Besse nuclear reactor**

This is the cover letter for 2 further pages being submitted by the Ohio Sierra Club. This letter includes testimony given at the Nov. 4 environmental scoping meeting held at Camp Perry, plus further comments.

Thank you.

*Patricia A. Marida*

Patricia A. Marida, Chair  
Ohio Sierra Club Nuclear Issues Committee

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Dec 1st

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SOUSI Review Complete  
Template = ADM-013

E-REDS = ADM-03  
Add = P. Crisper (pec)

Nov 30 10 09:26p

Patricia A. Marida

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p. 2



Ohio Sierra Club  
131 North High Street Suite 605  
Columbus, OH 43215-3026  
614-461-0734

Chief, Rules, Announcements and Directives Branch  
Division of Administrative Services  
Office of Administration, Mailstop TWB-05-B01M  
US Nuclear Regulatory Commission  
Washington DC 20555

**Docket ID: NRC-2010-0298**

**Subject: Proposed 20-year operating extension for the Davis Besse nuclear reactor**

My name is Patricia Marida and I am the chair of the Nuclear Issues Committee of the Ohio Sierra Club.

First let me say that the Sierra Club is disappointed that the NRC only gave 10 days notice of these scoping meetings in the Federal Register, and that the public only had 3 days notice from an article in *The Toledo Blade*. The Davis-Besse Environmental Report and License Renewal Application were almost 2000 pages, not including the NRC Generic Environmental Impact Statement for Nuclear License Renewal. Therefore, we would like to request that the NRC hold at least one additional scoping meeting, and that this be held in Toledo, close to the population center with residents who are informed by the *Blade*. Also, setting the comment deadline during the holiday season makes it difficult for people to have time to digest the material and comment. Therefore, we would also like to request an extension of the comment period, preferably until the end of January.

16-23-LR

The Sierra Club opposes nuclear energy in its entirety, citing serious environmental, health, and public expense issues throughout the nuclear fuel cycle. The time frames needed to guard the radioactive nuclear waste generated from this process are geologic in nature. Isolating the radioactive nuclear waste will consume public time and money for generations to come. The only viable solution for radioactive waste is to stop generating it. Radioactive contamination and waste are a major reason to discontinue the use of nuclear power.

16-24-RW

The risk and reality is that radioactive contamination has occurred, is occurring and will continue to occur throughout the nuclear power cycle. Mining is leaving radioactive tailings exposed to the air and water on First Nations land in the US, Canada and Australia. Contamination occurs throughout the milling, refining, transport, conversion of uranium to uranium hexafluoride (UF<sub>6</sub>), and then enrichment—which in the gaseous diffusion process at Piketon Ohio took as much energy as a large city. Then the fissionable uranium must be formulated into rods. An enormous waste stream is the depleted uranium hexafluoride (DUF<sub>6</sub>), which is 99% of the original uranium but is not fissionable and therefore not usable for energy. However, it is just as radioactive and must be deconverted back to the more stable uranium oxide. A newly operating plant at Piketon will take 25 years running round-the-clock to deconvert the 40,000 14-ton canisters of DUF<sub>6</sub> already on the site, not counting how much more will be generated from other enrichment facilities.

The environmental effects that occur in other parts of the United States should come under consideration when the NRC develops the Environmental Impact Statement.

16-25-LR

Enormous amounts of energy go into this process. Added together along with disposal, these supporting industries cause nuclear power to also come with a heavy carbon price, which means that nuclear power will not address but will worsen global warming.

16-26-AM

- continued -

Nov 30 10 09:27p

Patricia A. Marida

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p.3

Centralized electric power, complete with centralized corporate profits for the nuclear and coal industries, has been heavily subsidized by the public for many years. Without public subsidies, loan guarantees and liability limits, for which the public must bear the burden, no nuclear power plant would have ever been built.

In Ohio, the use of electricity has been decreasing for a number of years. Now with progressive legislation like Ohio's SB 221, energy efficiency and conservation, combined with the renewable sources of solar, wind, and geothermal, are providing so much additional and conserved energy that all plans for new coal plants in our state have been cancelled and there is a strong movement to shut down the old polluting coal-fired plants. The argument of US rising energy needs is irrational at best and at worst the resulting global warming would threaten our life-support system, and yes, our "way of life".

16-27-AL

There is good reason why there are no new nuclear power plants coming online to replace the old ones. Wall Street will not support them. The enormous up-front costs and 12-20 year length of time for completion makes them financially uncompetitive with wind and solar. And the latter are decentralized, meaning that jobs are being created all over the state. As compared to Davis Besse's extended shutdowns, if the wind stops blowing or the sun is behind a cloud somewhere, there is likely not to be a serious or long-term power shortage problem.

16-28-AL

A 20-year extension of the Davis Besse operating license is unfounded on the grounds of future electric-generating needs.

16-29-OS

Even without the aforementioned problems plaguing nuclear power in general, the David Besse facility is in tenuous condition to continue operation, even at the present. Continuing for 20 years past 2017 would constitute reckless disregard for public safety and environmental integrity. The history of failures and dangers at this plant is well known and well documented, so the Sierra Club will not reiterate them here.

16-30-OS

However, the process by which First Energy and the Nuclear Regulatory Commission allowed a delay in the inspection of the reactor head in 2002, coming within 1/8 inch of a nuclear disaster that would have left the Midwest uninhabitable and the Great Lakes, the world's largest supply of fresh water, filled with radioactive contamination shows that the public should have no confidence whatsoever in the ability of First Energy to self-regulate or in the NRC to rigorously enforce and inspect so dangerous an operation as a nuclear reactor. They were willing to take these incredible risks simply based on profits. Not only that, but corporate culture makes it difficult for any one person to buck the system or feel responsible for anything other than following the orders of their immediate superiors.

16-31-OS

Even the 40-year time frame for operation of a power plant does not have an engineering basis, but was based on the time needed to pay off construction bonds. What happened to the engineering responsibility to oversee and advise an operation of this magnitude of danger?

16-32-LR

The NRC should take into consideration that spent fuel rods at the site must be secured from terrorist attack or accident. The pools and casks holding the rods constitute by far the most vulnerable area at the plant for attack. Some canisters are old and brittle. Any loss of water from the pools, by accident, earthquake or terrorist attack, would have catastrophic results. Most nuclear organizations around the country recommend hardened onsite storage (HOSS) for spent fuel rods. This technology consists of isolating cooled rods in canisters, but these canisters have much stronger specifications than the casks that are currently used. The filled canisters would be secured behind earthen bunkers. The NRC can get information on this process from Dr. Arjun Makhijani at the Institute for Energy and Environmental Research ([www.ieer.org](http://www.ieer.org)).

16-33-OS

Last but not least, nuclear power is being used to keep the nuclear weapons industry afloat. Facilities and research for nuclear power can be transferred to weapons uses. The USEC enrichment plant at Piketon is a prime example. More importantly, however, is the need for "legitimizing" the nuclear industry. Without nuclear power, the nuclear industry would be only about weapons of mass destruction, giving a very different light to university research, recruiting bright young students, and other jobs and research in the industry. As the prospect of the current generation of nuclear power plants shutting down approaches, a weapons industry desperate for a non-military front is the tail wagging the dog of the push for new and continued nuclear power.

16-34-OS

- end -

Commenter: Lee Blackburn

Page 1 of 1

## PUBLIC SUBMISSION

As of: December 07, 2010  
Received: December 02, 2010  
Status: Pending\_Post  
Tracking No. 80baca30  
Comments Due: December 27, 2010  
Submission Type: Web

**Docket:** NRC-2010-0298  
Receipt and Availability of Application for License Renewal

**Comment On:** NRC-2010-0298-0003  
FirstEnergy Nuclear Operating Company; Notice of Intent to Prepare an Environmental Impact Statement and Conduct the Scoping Process for Davis-Besse Nuclear Power Station, Unit 1

**Document:** NRC-2010-0298-DRAFT-0001  
Comment on FR Doc # 2010-27276

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### Submitter Information

**Name:** Lee Blackburn

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### General Comment

I would be very interested in a scoping meeting taking place in Toledo, Ohio where more people would be able to attend. I also think more time should be allotted for the comment period as December 27, 2010 falls in the middle of the holiday period. perhaps an additional 30 day period would be appropriate.

} 44-1-LR

75 FR 57299

9/20/10

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E-R105 = AOM-03  
Add = P. Cooper (PEC)

<https://fdms.erulemaking.net/fdms-web-agency/component/submitterInfoCoverPage?Call=Print&PrintId...> 12/07/2010

Commenter: Mary



# United States Department of the Interior

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2010 DEC 27 PM 2:23

Ecological Services

4625 Morse Road, Suite 104

Columbus, Ohio 43230

(614) 416-8993 / FAX (614) 416-8994

December 16, 2010

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Cindy Bladey, Chief RADB  
 Division of Administrative Services  
 Office of Administration  
 Mail Stop: TWB-05-B01M  
 U.S. Nuclear Regulatory Commission  
 Washington, DC 20555-0001

Subject: Docket ID NRD-2010-0298

Dear Ms. Bladey:

TAILS #: 31420-2011-TA-0097

This is in response to the Nuclear Regulatory Commission's October 28, 2010 Federal Register Notice of Intent to Prepare an Environmental Impact Statement (EIS) and to conduct the scoping process for Davis-Besse Nuclear Power Station, Unit 1: FirstEnergy Nuclear Operating Company (FENOC) has submitted an application for renewal of Facility Operating License No. NPF-003 for an additional 20 years of operation at David-Besse Nuclear Power Station, Unit 1, located in Oak Harbor, Ottawa County, Ohio. The EIS is being prepared as part of this application process.

There are no Federal wilderness areas or designated critical habitat within the vicinity of the proposed site. Davis-Besse consists of 954 acres, of which approximately 733 acres are marshland that is leased to the U.S. government as part of the Ottawa National Wildlife Refuge.

In a letter dated December 16, 2009, we provided comments to FENOC on the proposed 20-year renewal of the operating license for Davis-Besse. At this time we have no additional comments.

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the Endangered Species Act of 1973 (ESA), as amended, and are consistent with the intent of the National Environmental Policy Act of 1969 and the U. S. Fish and Wildlife Service's Mitigation Policy.

If you have questions, or if we may be of further assistance in this matter, please contact Angela Boyer at extension 22 in this office.

Sincerely,

Mary M. Knapp, Ph.D.  
 Field Supervisor

cc: ODNR, DOW, SCEA Unit, Columbus, Ohio

SUNSI Review Complete  
 Template = ADM-013

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 Add = P. Cooper (pec)

45-1-TR  
 45-2-AQ

Knapp

Commenter: John P. Froman



**PEORIA TRIBE OF INDIANS OF OKLAHOMA**

118 S. Eight Tribes Trail (918) 540-2535 FAX (918) 540-2538

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MIAMI, OKLAHOMA 74355

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John P. Froman

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Jason Dollarhide

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December 8, 2010

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Mailstop TWB-05-B01M  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001

③

9/20/10

75 FR 57299

RE: Request for scoping comments concerning the Davis-Besse Nuclear Power Plant, Unit No. 1,  
License renewal application review

Thank you for notice of the referenced project. Please note that the contact person has changed, Frank Hecksher is the new Section 106/NAGPRA representative. The Peoria Tribe of Indians of Oklahoma is currently unaware of any documentation directly linking Indian Religious Sites to the proposed construction. In the event any items falling under the Native American Graves Protection and Repatriation Act (NAGPRA) are discovered during construction, the Peoria Tribe request notification and further consultation.

The Peoria Tribe has no objection to the proposed construction. However, if any human skeletal remains and/or any objects falling under NAGPRA are uncovered during construction, the construction should stop immediately, and the appropriate persons, including state and tribal NAGPRA representatives contacted.

46-1-AR

A handwritten signature in black ink, appearing to be 'JPF'.

John P. Froman  
Chief

xc: Bud Ellis, Repatriation/NAGPRA Committee Chairman

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SECRETARY  
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THIRD COUNCILMAN  
Alan Goforth

Commenter: Chris Galvin



United Way  
of Greater Toledo

## First Energy's United Way Involvement

November 4, 2010

- The Davis Besse Nuclear Power Station, and on a larger scale, the First Energy Corporation, are a **tremendous community partner** to the local United Way.
- Since 1993, First Energy has **contributed more than \$13.5 million** to United Way of Greater Toledo which serves Ottawa, Wood, and Lucas counties.
  - \$3.1 million came from corporate gifts.
  - \$10.4 million from its incredibly generous employees.
  - First Energy has also earned **United Way's Pillar Award** each year since at least 1992... which means they consistently give more than \$100,000 each year to the greater Toledo campaign.
- Not only does this community consistently get solid financial support from First Energy and its employees, but executive leadership has also demonstrated exceptional personal commitment to our work.
  - In 1993, **Don Saunders** chaired the local United Way campaign, raising \$12.5 million.
  - In 2005, **Jim Murray**, now retired, but formerly First Energy President of Ohio Operations, chaired the local United Way campaign. Under Mr. Murray's leadership, the campaign raised \$13.3 million.
    - We also presented Mr. Murray with our prestigious **Spirit of Caring** award in 2006 for demonstrating value and concern for our community through vision, leadership, service, and commitment to the people of our community.
  - In 2009, **Trent Smith**, regional president of Toledo Edison/First Energy, became chairman of United Way of Greater Toledo's Board of Trustees and is drawing to a close on his second year of service.
    - Mr. Smith has gone above and beyond the level of service, dedication, and commitment we typically see from Board chairs.
    - He has become involved in virtually every level of our work, digging in and helping find real solutions.
  - In addition to these executive leaders, numerous upper level management have supported United Way by using their voice and relationships to help secure financial and volunteer support as well as advocating on behalf of United Way and the NW Ohio region.
    - In addition to Don Saunders, Jim Murray, and Trent Smith, some of these standout employees include **Debbie Paul, Meg Adams, and Mel Womack**.
    - Additionally, in the 1990s, **Jennifer Shriver** served five years as the chair of our Community Impact Cabinet, the highest level of community impact volunteers who decide how money is allocated in the community. Also joining her on the cabinet was **Jenny Amidon**. Both are now retired.

4-3-SE

9/20/2010  
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Call = J. Cooper (pec)

- First Energy also demonstrates incredible commitment to the community through sponsorships of or participation in programs and events.
    - In 1993 and 1994, Davis Besse sponsored our **Loaned Executive program**, a program that provides United Way with temporary campaign employees. First Energy began sponsoring this program in 1996 and continued for 11 years.
    - Employees consistently contribute to and participate in **Stamp Out Hunger** and/or **Scouting for Food** efforts each year. They were a major sponsor of our **Family Food Fund** in 2008.
    - First Energy was a sponsor of our **Community Building Event** in 2005 and was the initiator and sponsor of our **Veterans' Appreciation Event** in 2006 which continued until 2009.
  - Davis Besse and First Energy are a valued community partner, both philanthropically and economically. They have been incredible contributors to our community over the past 20 years and we only hope this will continue for at least another 20.
- 4-3-SE  
continued
- 4-4-SL



Commenter: Jane Ridenour

My name is: Jane Ridenour <sup>President of</sup> and I am representing OPEIU Local 19. OPEIU stands for Office & Professional Employees International Union and we represent the clerical support staff at Davis Besse. On behalf of the Union I'd like to voice our support at this public meeting. A renewal of this license will promote and maintain employment of not only our members, who live and shop and send their children to schools in this area, but... it will assure the delivery of reliable electric service to all our customers.

15-5-SL

15-6-SE

Research has shown that nuclear power is clean. It is efficient and produces more energy at a lower cost than any other means of generation so it is important that we keep this plant in operation.

15-7-AL

Local 19 is proud of the safety record and operations at Davis-Besse as well as the work we do here and the service we provide to the public. OPEIU Local 19 would like to continue to be part of the team for the next 20 years.

15-8-OS

9/20/2010

75 FR 57299

(7)

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2011 MAR -7 PM 5:50

RULES AND DIRECTIVES  
BRANCH  
USNRC

SUNSI Review Complete  
Template = ADM-013

FRIDS = ADM-03  
Add = J. Cooper (pec)

Commenter: Joseph DeMare

9/20/2010  
75FR57299

9

Additional Comment from Joseph DeMare  
11/4/10

Transformer fires cause unique pollutants such as dioxin. Since the cause of the 2009 Davis-Besse transformer fire has not been determined, the possibility of another fire must be considered. The EIS must include the <sup>impact</sup> of emissions created by transformer fires.

14-21-AM

Josh DeMare

RECEIVED

OCT 13 2010 7 PM 5:50

FILED IN RECORDS

SUNST Review Complete  
Template = ADM-013

E-RFDs = ADM-03  
Call = P. Cooper (PCC)

Commenter: Dennis Kucinich

**DENNIS J. KUCINICH**  
10TH DISTRICT, OHIO

2445 RAYBURN HOUSE OFFICE BUILDING  
WASHINGTON, D.C. 20515  
(202) 225-5871

14400 DETROIT AVENUE  
LAKEWOOD, OHIO 44107  
(216) 228-8850

PARMATOWN MALL  
7904 DAY DRIVE  
PARMA, OH 44129  
(440) 845-2707



**Congress of the United States**  
**House of Representatives**  
www.kucinich.house.gov

CHAIRMAN,  
SUBCOMMITTEE ON DOMESTIC POLICY

COMMITTEE ON OVERSIGHT AND  
GOVERNMENT REFORM

COMMITTEE ON EDUCATION AND LABOR

November 4, 2010

The Honorable Gregory B. Jaczko  
Chairman  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001

Dear Chairman Jaczko:

First Energy should not be allowed to continue to operate Davis-Besse after 2017. The people of Northeast Ohio are familiar with First Energy's pathetic record in protecting the safety of people who live in the region.

In a series of recent articles in the Toledo Blade, which I am enclosing, the people of our region are reminded about the 12-minute interruption in the feedwater flow to the steam generators on June 9, 1985, which was cited as a "potential catastrophe."

The people of our region are reminded of Davis-Besse's reactor head, "weakened by years of neglect," which nearly burst in 2002.

The people of our region are reminded that your predecessor Harold Denton stated in 2004 that these two incidents represent the nuclear "industry's second and third-lowest points after Three Mile Island."

The people of our region are reminded that First Energy's employees tried to conceal the truth of the 2002 incident from the Nuclear Regulatory Agency (NRC) using "tricks, schemes, or devices ... to deliberately mislead" your agency.

The people of our region are reminded that David Uhlmann, chief of the Justice Department's environmental crimes section, said that First Energy showed "brazen arrogance" and "breached the public trust" by withholding information about the reactor head incident.

The people are reminded that federal prosecutors described the reactor head incident "as one of the biggest cover-ups in U.S. nuclear history."

The people of our region are reminded that First Energy paid a record fine of \$33.45 million as a result of its actions. Of that amount, a record \$28 million was the fine that First Energy paid "to avoid being criminally prosecuted for lying to the government about the dangerous condition of Davis-Besse's old reactor head," according to then-U.S. Attorney Greg White in 2006.

While both of those fines were record fines at the time they were imposed, I pointed out then that the total fine was merely 1% of First Energy's profits in 2004. While these fines may have been

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*E-RIDS = ADM-03  
Add = P. Cooper (pec)*

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RULES AND DIRECTIVES  
BRANCH  
USMTC

47-1-OL

47-2-OS

record fines, they were a mere slap on the wrist for First Energy and nothing near what would have been necessary to change its corporate culture.

The corrosion of the reactor head started because the Davis-Besse reactor head was made of an alloy that would not withstand this kind of corrosion. All of the other operators of nuclear reactors with similar heads confronted this situation by replacing their reactor heads with new heads of a different alloy that would not be subject to this kind of corrosion. In 2004, FirstEnergy chose cost over safety, and it replaced the corroded reactor head with another reactor head made of exactly the same material. Six years later, First Energy feigned shock to discover that corrosion was forming on that inferior reactor head also.

Still, First Energy had not learned its lesson. It wanted to postpone the final replacement of the reactor head, with a new head made of the safe, non-corroding alloy, until 2014. First Energy did not abandon that 2014 replacement date until the NRC threatened to require Davis-Besse to shut down for inspection of the old reactor head every year until it was replaced. Only as a result of that threat is First Energy finally going to install a non-corroding reactor head in 2011.

Recent events suggest that First Energy still has a corporate culture that is more focused on costs and profits than it is on safety. In 2009, Davis-Besse suffered an explosion and fire in a power-switching gear located outside of the reactor building, which First Energy failed to report and did not declare an alert.

The evidence shows that this culture exists in First Energy beyond its operation of Davis-Besse. The NRC has been keeping a "close watch" on First Energy's operation of its Perry reactor in Northeast Ohio as well. The NRC remains concerned that Perry's safety culture is not up to industry standards and has maintained a close watch there for the last two years.

Davis-Besse has been operating for 33 years. It has experienced two of the industry's most serious nuclear incidents during those years. This is not just bad luck. The problems at Davis-Besse are a direct result of First Energy's mismanagement and disregard for the safety of people who live and work in the area and who would be affected by any nuclear accident. The NRC should not extend the license of a company that only operates safely while a "special inspection team" is monitoring its day-to-day activities and when a "close watch" is being kept on it. The NRC must continue to keep a close watch on Davis-Besse between now and 2017, and then should ensure that First this aging reactor with a deplorable history of operations and maintenance be safely shut down and decommissioned at the end of its current license.

Sincerely,



Dennis J. Kucinich  
Member of Congress

DJK: mg

47-2-OS  
continued

Commenter: Marilyn & Paul Nesser

**Cooper, Paula**

---

**From:** Paul Nusser [1537onthelake@freeway.net]  
**Sent:** Monday, December 13, 2010 9:38 PM  
**To:** Cooper, Paula  
**Subject:** Davis-Besse

Paula -

We are area residents near the Davis-Besse plant as we live in Wood County. We would like to have this nuclear power plant eliminated. We say the article about it in our local paper, the *Sentinel-Tribune*. It is an old plant and has had a history of accidents/problems.

Marilyn & Paul Nusser

1040 Carol Road

Bowling Green, OH 43402

} 48-1-OL

9/20/2010  
 75 FR 57299

11

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2011 MAR -7 PM 5:51

RULES AND DIRECTIVES  
 BRANCH  
 USNMC

SUNSI Review Complete  
 Template = ADM-013

1 E-RIDS = ADM-03  
 Add = f. Cooper (pec)

Commenter: Jessica Lillian Weinberg

**Cooper, Paula**

---

**From:** Jessica Lillian Weinberg [jessicaweinberg23@gmail.com]  
**Sent:** Sunday, December 05, 2010 2:39 PM  
**To:** Cooper, Paula  
**Subject:** Please come and hear what the people have to say about Davis-Besse, Sat. Dec 18

The people of Northwest Ohio; Southeast Michigan, and other communities that would be the most adversely affected by an accident at Davis-Besse deserve a longer comment period and more hearings before the NRC automatically approves First Energy's request to re-license. Please attend our hearing, as outlined below.

**PUBLIC HEARING**  
**on re-licensing of the Davis-Besse Atomic Reactor**  
**Saturday Dec. 18 from 12 noon to 3 pm**  
**St. Mark's Episcopal Church**  
**2272 Collingwood Blvd**  
**Toledo, Ohio**  
**20 MORE Years of Radioactive Russian Roulette on**  
**the Great Lakes shore?!**

**We are calling for input from all interested parties regarding First Energy's mismanagement of Davis-Besse, and the Nuclear Regulatory Commission's lack of oversight of that facility, in particular residents of Ohio, the Toledo area, South East Michigan, or residents of any community that would be directly adversely effected by an accident at Davis-Besse.**

49-1-LR

**Anyone can testify, sign in will be required.**

**This hearing will be videotaped and presented to the NRC.**

**For more information contact: Anita Rios 419-243-8772, [rhannon@toast.net](mailto:rhannon@toast.net)**

- FirstEnergy has applied to the U.S. Nuclear Regulatory Commission (NRC) for a 20-year operating license extension at its Davis-Besse nuclear power plant near Oak Harbor, Ohio, just over 20 miles east of Toledo.
- Davis-Besse is one of the most problem-plagued atomic reactors in the entire country: it has suffered six "significant accident sequence precursors", three times more than any other American nuclear plant.
- The original license was granted in 1977 and will expire in 2017. If the extension is approved Davis-Besse can operate until 2037.
- In the past 10 years NRC has rubber-stamped 60 of 60 license renewals sought by industry.

- The NRC Office of Inspector General has reported serious problems with NRC's license extension program: NRC staff have "cut and pasted" the nuclear utility's own work, sometimes word for word, falsely presenting it as an independent safety

**sponsoring organizations:**

The Green Party of Ohio ([ohiogreens.org](http://ohiogreens.org))

The Ohio Sierra Club ( [ohiosierraclub.org](http://ohiosierraclub.org) )

Beyond Nuclear ( [beyondnuclear.org](http://beyondnuclear.org) )

Coalition for a Nuclear-Free Great Lakes

49-1-LR  
continued

Commenter: Eric Britton

FILES IN COLLECTIVES  
PERRY

**Gallagher, Carol**

**From:** Sierra Club Membership Services [membership.services@sierraclub.org] on behalf of Eric Britton [eric\_perrysburg@yahoo.com]  
**Sent:** Friday, December 03, 2010 5:03 PM  
**To:** Gallagher, Carol  
**Subject:** Davis-Besse Relicense Docket ID: NRC-2010-0298

Dec 3, 2010

Carol Gallagher

To Gallagher,

9/20/2010  
75 FR 57299  
(5)

RECEIVED

Ohioans are concerned about the environment, the rising costs of energy, and the dangers associated with nuclear power! However, that has not stopped First Energy from irresponsibly pursuing to get the Davis-Besse nuclear plant on Lake Erie relicensed to continue operation until 2037.

30-1-OL

**NO NUCLEAR POWER PLANT IS SAFE AND DAVIS-BESSE IS ONE OF THE WORST!**  
In 2002 the Davis-Besse plant nearly melted down almost causing a nuclear disaster. Neither First Energy nor the Nuclear Regulatory Commission discovered an enormous rust hole in the reactor head until it was almost too late! According to the Nuclear Regulatory Commission, 2 of the top 5 most dangerous nuclear incidences since 1979 have happened at Davis-Besse.

30-2-OS

**NUCLEAR ENERGY IS NOT CLEAN OR GREEN ENERGY!**  
Every nuclear reactor generates about 20 tons of highly radioactive waste per year, and after 40 years of nuclear power, the U.S. still has not found an acceptable solution for the waste. The waste can cause cancer, birth defects, and even death. Nuclear power uses and pollutes significant amounts of water, while the mining, transportation, and enriching of uranium is carbon intensive which contributes to global warming.

30-3-RW

I do not want Davis-Besse to continue generating electricity and want the Nuclear Regulatory Commission to end the operating license for the plant. I care about the environment and support clean energy solutions such as energy efficiency and renewable power, and I know that Davis-Besse compromises my safety and the safety of my loved ones.

30-4-AL

Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis-Besse.

30-5-OL

Sincerely,

Eric Britton  
745 Heathermoor Ln  
Perrysburg, OH 43551-2931

SUNSI Renew Complete  
Template = ADM-013

FRIDS = ADM-03  
Add = p. Cooper (pec)

1



Commenter: Matt Trokan

RULES AND DIRECTIVES  
BRANCH

**Gallagher, Carol**

**From:** Sierra Club Membership Services [membership.services@sierraclub.org] on behalf of Matt Trokan [matttrokan@gmail.com]  
**Sent:** Sunday, December 05, 2010 1:07 PM  
**To:** Gallagher, Carol  
**Subject:** Davis-Besse Relicense Docket ID: NRC-2010-0298

DEC -6 AM 11:38

Dec 5, 2010

RECEIVED

Carol Gallagher

To Gallagher,

Ohioans are concerned about the environment, the rising costs of energy, and the dangers associated with nuclear power! However, that has not stopped First Energy from irresponsibly pursuing to get the Davis-Besse nuclear plant on Lake Erie relicensed to continue operation until 2037.

90-1-OL

**NO NUCLEAR POWER PLANT IS SAFE AND DAVIS-BESSE IS ONE OF THE WORST!**

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90-2-OS

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90-3-RW

I do not want Davis-Besse to continue generating electricity and want the Nuclear Regulatory Commission to end the operating license for the plant. I care about the environment and support clean energy solutions such as energy efficiency and renewable power, and I know that Davis-Besse compromises my safety and the safety of my loved ones.

90-4-AL

Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis-Besse.

90-5-OL

Sincerely,

Matt Trokan  
 5375 Sultana Dr  
 Cincinnati, OH 45238-5225  
 (443) 889-7222

Commenter: Lee Blackburn

**Gallagher, Carol**

RULES AND OBJECTIVES  
COUNCIL

**From:** Sierra Club Membership Services [membership.services@sierraclub.org] on behalf of Lee Blackburn [leeblackburn@live.com]  
**Sent:** Sunday, December 05, 2010 3:07 PM  
**To:** Gallagher, Carol  
**Subject:** Davis-Besse Relicense Docket ID: NRC-2010-0298

DEC DEC -6 AM 11:38

Dec 5, 2010

RECEIVED

Carol Gallagher

To Gallagher,

Ohioans are concerned about the environment, the rising costs of energy, and the dangers associated with nuclear power! However, that has not stopped First Energy from irresponsibly pursuing to get the Davis-Besse nuclear plant on Lake Erie relicensed to continue operation until 2037.

44-2-OL

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44-3-OS

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44-4-RW

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44-5-AL

Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis-Besse.

44-6-OL

Sincerely,

Lee Blackburn  
2261 Valley Chapel Rd  
Jackson, OH 45640-8941

Commenter: Bob Greenbaum

RULES AND DIRECTIVES  
FENCH  
10/10

**Gallagher, Carol**

**From:** Sierra Club Membership Services [membership.services@sierraclub.org] on behalf of Bob Greenbaum [bombhumbug@att.net]  
**Sent:** Sunday, December 05, 2010 5:38 PM  
**To:** Gallagher, Carol  
**Subject:** Davis-Besse Relicense Docket ID: NRC-2010-0298

RECEIVED

Dec 5, 2010

Carol Gallagher

To Gallagher,

Ohioans are concerned about the environment, the rising costs of energy, and the dangers associated with nuclear power! However, that has not stopped First Energy from irresponsibly pursuing to get the Davis-Besse nuclear plant on Lake Erie relicensed to continue operation until 2037.

59-1-OL

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59-2-OS

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59-3-RW

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59-4-AL

Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis-Besse.

59-5-OL

Sincerely,

Bob Greenbaum  
4105 Stillmore Rd  
Cleveland, OH 44121-3129  
(216) 382-4321

Commenter: Robert Kyle

RULES AND DIRECTIVES  
RECEIVED  
DEC 6 2010

**Gallagher, Carol**

**From:** Sierra Club Membership Services [membership.services@sierraclub.org] on behalf of Robert Kyle [rkyle@wideopenwest.com]  
**Sent:** Sunday, December 05, 2010 9:38 PM  
**To:** Gallagher, Carol  
**Subject:** Davis-Besse Relicense Docket ID: NRC-2010-0298

DEC 6 AM 11:38

Dec 5, 2010

RECEIVED

Carol Gallagher

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71-1-OL

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71-2-OS

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71-3-RW

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71-4-AL

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71-5-OL

Sincerely,

Robert Kyle  
1161 Riva Ridge Blvd  
Gahanna, OH 43230-3810  
(614) 855-1600

Commenter: Tim Wagner

RULES AND DIRECTIVES  
BRANCH  
US 10

**Gallagher, Carol**

**From:** Sierra Club Membership Services [membership.services@sierraclub.org] on behalf of Tim Wagner [sid@shortnorth.org]  
**Sent:** Tuesday, December 07, 2010 7:51 PM  
**To:** Gallagher, Carol  
**Subject:** Davis-Besse Relicense Docket ID: NRC-2010-0298

DEC 7 AM 7:50

RECEIVED

Dec 7, 2010

Carol Gallagher

To Gallagher,

Ohioans are concerned about the environment, the rising costs of energy, and the dangers associated with nuclear power! However, that has not stopped First Energy from irresponsibly pursuing to get the Davis-Besse nuclear plant on Lake Erie relicensed to continue operation until 2037.

78-1-OL

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78-2-OS

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78-3-RW

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78-4-AL

Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis-Besse.

78-5-OL

Sincerely,

Tim Wagner  
3089 Ontario St  
Columbus, OH 43224-4251

Commenter: Jim Wagner

RULES AND DIRECTIVES  
PLANT

**Gallagher, Carol**

**From:** Sierra Club Membership Services [membership.services@sierraclub.org] on behalf of Jim Wagner [jimwagner@safe-mail.net]  
**Sent:** Tuesday, December 07, 2010 8:21 PM  
**To:** Gallagher, Carol  
**Subject:** Davis-Besse Relicense Docket ID: NRC-2010-0298

DEC 7 - 3 AM 7: 50

RECEIVED

Dec 7, 2010

Carol Gallagher

To Gallagher,

Ohioans are concerned about the environment, the rising costs of energy, and the dangers associated with nuclear power! However, that has not stopped First Energy from irresponsibly pursuing to get the Davis-Besse nuclear plant on Lake Erie relicensed to continue operation until 2037.

75-1-OL

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75-2-OS

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75-3-RW

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75-4-AL

Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis-Besse.

75-5-OL

Sincerely,

Jim Wagner  
4897 E Walnut St  
Westerville, OH 43081-9610

Commenter: Sandy Bihn

RULES AND DIRECTIVES  
BRANCH  
FILE

**Gallagher, Carol**

**From:** Sierra Club Membership Services [membership.services@sierraclub.org] on behalf of Sandy Bihn [sandyakeerie@aol.com]  
**Sent:** Tuesday, December 07, 2010 8:54 PM  
**To:** Gallagher, Carol  
**Subject:** Davis-Besse Relicense Docket ID: NRC-2010-0298

DEC -3 AM 7:50

RECEIVED

Dec 7, 2010

Carol Gallagher

To Gallagher,

Ohioans are concerned about the environment, the rising costs of energy, and the dangers associated with nuclear power! However, that has not stopped First Energy from irresponsibly pursuing to get the Davis-Besse nuclear plant on Lake Erie relicensed to continue operation until 2037.

58-1-OL

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58-2-OS

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58-4-AL

Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis-Besse.

58-5-OL

Sincerely,

Sandy Bihn  
 6565 Bayshore Rd  
 Oregon, OH 43616-4477

Commenter: Elisa Young

RULES AND DIRECTIVES  
BRANCH  
10/23

**Gallagher, Carol**

**From:** Sierra Club Membership Services [membership.services@sierraclub.org] on behalf of Elisa Young [elisayoung1@yahoo.com]  
**Sent:** Tuesday, December 07, 2010 11:55 PM  
**To:** Gallagher, Carol  
**Subject:** Davis-Besse Relicense Docket ID: NRC-2010-0298

DEC -8 AM 7: 51

RECEIVED

Dec 7, 2010

Carol Gallagher

To Gallagher,

Ohioans are concerned about the environment, the rising costs of energy, and the dangers associated with nuclear power! However, that has not stopped First Energy from irresponsibly pursuing to get the Davis-Besse nuclear plant on Lake Erie relicensed to continue operation until 2037.

89-1-OL

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89-2-OS

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Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis-Besse.

89-5-OL

Sincerely,

Elisa Young  
48360 Carmel Rd  
Racine, OH 45771-9643



Commenter: Linda Milligan

RULES AND DIRECTIVES  
SEARCH

**Gallagher, Carol**

**From:** Sierra Club Membership Services [membership.services@sierraclub.org] on behalf of Linda Milligan [xflowers@aol.com]  
**Sent:** Wednesday, December 08, 2010 5:23 AM  
**To:** Gallagher, Carol  
**Subject:** Davis-Besse Relicense Docket ID: NRC-2010-0298

Dec 8, 2010

RECEIVED

Carol Gallagher

To Gallagher,

Ohioans are concerned about the environment, the rising costs of energy, and the dangers associated with nuclear power! However, that has not stopped First Energy from irresponsibly pursuing to get the Davis-Besse nuclear plant on Lake Erie relicensed to continue operation until 2037.

88-1-OL

**NO NUCLEAR POWER PLANT IS SAFE AND DAVIS-BESSE IS ONE OF THE WORST!**

In 2002 the Davis-Besse plant nearly melted down almost causing a nuclear disaster. Neither First Energy nor the Nuclear Regulatory Commission discovered an enormous rust hole in the reactor head until it was almost too late! According to the Nuclear Regulatory Commission, 2 of the top 5 most dangerous nuclear incidences since 1979 have happened at Davis-Besse.

88-2-OS

**NUCLEAR ENERGY IS NOT CLEAN OR GREEN ENERGY!**

Every nuclear reactor generates about 20 tons of highly radioactive waste per year, and after 40 years of nuclear power, the U.S. still has not found an acceptable solution for the waste. The waste can cause cancer, birth defects, and even death. Nuclear power uses and pollutes significant amounts of water, while the mining, transportation, and enriching of uranium is carbon intensive which contributes to global warming.

88-3-RW

I do not want Davis-Besse to continue generating electricity and want the Nuclear Regulatory Commission to end the operating license for the plant. I care about the environment and support clean energy solutions such as energy efficiency and renewable power, and I know that Davis-Besse compromises my safety and the safety of my loved ones.

88-4-AL

Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis-Besse.

88-5-OL

Sincerely,

Linda Milligan  
 10620 Belmont Pl  
 Powell, OH 43065-8698

Commenter: Connie Hammond

RULES AND DIRECTIVES  
BRANCH  
LISTED

**Gallagher, Carol**

**From:** Sierra Club Membership Services [membership.services@sierraclub.org] on behalf of Connie Hammond [chammon@columbus.rr.com]  
**Sent:** Wednesday, December 08, 2010 11:02 AM  
**To:** Gallagher, Carol  
**Subject:** Davis-Besse Relicense Docket ID: NRC-2010-0298

DEC -8 PM 1: 27

RECEIVED

Dec 8, 2010

Carol Gallagher

To Gallagher,

Ohioans are concerned about the environment, the rising costs of energy, and the dangers associated with nuclear power! However, that has not stopped First Energy from irresponsibly pursuing to get the Davis-Besse nuclear plant on Lake Erie relicensed to continue operation until 2037.

39-6-OL

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39-7-OS

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39-8-RW

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39-9-AL

Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis-Besse.

39-10-OL

Sincerely,

Connie Hammond  
166 Acton Rd  
Columbus, OH 43214-3304  
(614) 531-4146

Commenter: Paul Wojoski

RULES AND DIRECTIVES  
BRANCH

**Gallagher, Carol**

**From:** Sierra Club Membership Services [membership.services@sierraclub.org] on behalf of Paul Wojoski [pwojoski@hotmail.com]  
**Sent:** Wednesday, December 08, 2010 12:28 PM  
**To:** Gallagher, Carol  
**Subject:** Davis-Besse Relicense Docket ID: NRC-2010-0298

DEC -8 PM 1: 27

Dec 8, 2010

RECEIVED

Carol Gallagher

To Gallagher,

Ohioans are concerned about the environment, the rising costs of energy, and the dangers associated with nuclear power! However, that has not stopped First Energy from irresponsibly pursuing to get the Davis-Besse nuclear plant on Lake Erie relicensed to continue operation until 2037.

87-1-OL

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87-2-OS

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87-3-RW

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87-4-AL

Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis-Besse.

87-5-OL

Sincerely,

Paul Wojoski  
 166 W Tulane Rd  
 Columbus, OH 43202-1927

Commenter: Carol Rainey

RULES AND DIRECTIVES

BRANCH  
12/9/10

**Gallagher, Carol**

**From:** Sierra Club Membership Services [membership.services@sierraclub.org] on behalf of Carol Rainey [rainey531@fuse.net]  
**Sent:** Thursday, December 09, 2010 6:39 AM  
**To:** Gallagher, Carol  
**Subject:** Davis-Besse Relicense Docket ID: NRC-2010-0298

DEC 13 AM 9:41

RECEIVED

Dec 9, 2010

Carol Gallagher

To Gallagher,

Ohioans are concerned about the environment, the rising costs of energy, and the dangers associated with nuclear power! However, that has not stopped First Energy from irresponsibly pursuing to get the Davis-Besse nuclear plant on Lake Erie relicensed to continue operation until 2037.

60-1-OL

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60-2-OS

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60-3-RW

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60-4-AL

Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis-Besse.

60-5-OL

Sincerely,

Carol Rainey  
1497 Beacon St  
Cincinnati, OH 45230-2818

Commenter: Margaret Holfinger

RULES AND DIRECTIVES  
ENFORCE

**Gallagher, Carol**

**From:** Sierra Club Membership Services [membership.services@sierraclub.org] on behalf of Margaret Holfinger [kenandpegh@aol.com]  
**Sent:** Thursday, December 09, 2010 8:41 AM  
**To:** Gallagher, Carol  
**Subject:** Davis-Besse Relicense Docket ID: NRC-2010-0298

DEC 13 AM 9:41

Dec 9, 2010

RECEIVED

Carol Gallagher

To Gallagher,

Ohioans are concerned about the environment, the rising costs of energy, and the dangers associated with nuclear power! However, that has not stopped First Energy from irresponsibly pursuing to get the Davis-Besse nuclear plant on Lake Erie relicensed to continue operation until 2037.

66-1-OL

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66-4-AL

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66-5-OL

Sincerely,

Margaret Holfinger  
 2869 N Lake Ct  
 Columbus, OH 43231-4017

Commenter: Simone Morgen

RULES AND DIRECTIVES  
FEB 10

**Gallagher, Carol**

**From:** Sierra Club Membership Services [membership.services@sierraclub.org] on behalf of Simone Morgen [smorgen@juno.com]  
**Sent:** Saturday, December 11, 2010 12:39 AM  
**To:** Gallagher, Carol  
**Subject:** Davis-Besse Relicense Docket ID: NRC-2010-0298

DEC 13 AM 9:41

Dec 10, 2010

RECEIVED

Carol Gallagher

To Gallagher,

Ohioans are concerned about the environment, the rising costs of energy, and the dangers associated with nuclear power! However, that has not stopped First Energy from irresponsibly pursuing to get the Davis-Besse nuclear plant on Lake Erie relicensed to continue operation until 2037.

34-3-OL

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34-4-OS

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34-5-RW

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34-6-AL

Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis-Besse.

34-7-OL

Sincerely,

Simone Morgen  
38 W Tulane Rd  
Columbus, OH 43202-1987

Commenter: Constance Gadwell-Newton Esq

**Gallagher, Carol**

RULES AND DIRECTIVES

**From:** Sierra Club Membership Services [membership.services@sierraclub.org] on behalf of Constance Gadell-Newton, Esq. [cngadell@yahoo.com]  
**Sent:** Saturday, December 11, 2010 6:11 PM  
**To:** Gallagher, Carol  
**Subject:** Davis-Besse Relicense Docket ID: NRC-2010-0298

DEC 13 AM 9:41

Dec 11, 2010

RECEIVED

Carol Gallagher

To Gallagher,

Ohioans are concerned about the environment, the rising costs of energy, and the dangers associated with nuclear power! However, that has not stopped First Energy from irresponsibly pursuing to get the Davis-Besse nuclear plant on Lake Erie relicensed to continue operation until 2037.

43-4-OL

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43-5-OS

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43-6-RW

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43-7-AL

Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis-Besse.

43-8-OL

Sincerely,

Constance Gadell-Newton, Esq.  
 1021 E Broad St  
 Columbus, OH 43205-1357

Commenter: Mary Beth Lohse

RULES AND DIRECTIVES

**Gallagher, Carol**

**From:** Sierra Club Membership Services [membership.services@sierraclub.org] on behalf of Mary Beth Lohse [mb@sugarberryhill.com]  
**Sent:** Sunday, December 12, 2010 5:44 PM  
**To:** Gallagher, Carol  
**Subject:** Davis-Besse Relicense Docket ID: NRC-2010-0298

DEC 13 AM 9:41

Dec 12, 2010

RECEIVED

Carol Gallagher

To Gallagher,

Ohioans are concerned about the environment, the rising costs of energy, and the dangers associated with nuclear power! However, that has not stopped First Energy from irresponsibly pursuing to get the Davis-Besse nuclear plant on Lake Erie relicensed to continue operation until 2037.

80-1-OL

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80-2-OS

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80-3-RW

I do not want Davis-Besse to continue generating electricity and want the Nuclear Regulatory Commission to end the operating license for the plant. I care about the environment and support clean energy solutions such as energy efficiency and renewable power, and I know that Davis-Besse compromises my safety and the safety of my loved ones.

80-4-AL

Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis-Besse.

80-5-OL

Sincerely,

Mary Beth Lohse  
33070 Cotterill Rd  
Pomeroy, OH 45769-9464



Commenter: Jean Puchstein

RULES AND DIRECTIVES  
FOUCH

**Gallagher, Carol**

**From:** Sierra Club Membership Services [membership.services@sierraclub.org] on behalf of Jean Puchstein [puch2\_1999@yahoo.com]  
**Sent:** Monday, December 13, 2010 9:14 AM  
**To:** Gallagher, Carol  
**Subject:** Davis-Besse Relicense Docket ID: NRC-2010-0298

13 DEC 13 AM 9:41

RECEIVED

Dec 13, 2010

Carol Gallagher

To Gallagher,

Ohioans are concerned about the environment, the rising costs of energy, and the dangers associated with nuclear power! However, that has not stopped First Energy from irresponsibly pursuing to get the Davis-Besse nuclear plant on Lake Erie relicensed to continue operation until 2037.

57-1-OL

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57-2-OS

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57-3-RW

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57-4-AL

Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis-Besse.

57-5-OL

Sincerely,

Jean Puchstein  
 505 E Dominion Blvd  
 Columbus, OH 43214-2216

Commenter: Andy Trokan

RULES AND DIRECTIVES  
BRANCH  
UNIT

**Gallagher, Carol**

**From:** Sierra Club Membership Services [membership.services@sierraclub.org] on behalf of Andy Trokan [matttrokan@gmail.com]  
**Sent:** Tuesday, December 14, 2010 2:17 PM  
**To:** Gallagher, Carol  
**Subject:** Davis-Besse Relicense Docket ID: NRC-2010-0298

DEC 16 AM 10:34

RECEIVED

Dec 14, 2010

Carol Gallagher

To Gallagher,

Ohioans are concerned about the environment, the rising costs of energy, and the dangers associated with nuclear power! However, that has not stopped First Energy from irresponsibly pursuing to get the Davis-Besse nuclear plant on Lake Erie relicensed to continue operation until 2037.

72-1-OL

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72-2-OS

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72-3-RW

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72-4-AL

Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis-Besse.

72-5-OL

Sincerely,

Andy Trokan  
4409 Franklin Ave  
Cincinnati, OH 45212-2905

Commenter: Christian George

RULES AND DIRECTIVES

0-0000

**Gallagher, Carol**

**From:** Sierra Club Membership Services [membership.services@sierraclub.org] on behalf of Christian George [cjgeorge41@gmail.com]  
**Sent:** Wednesday, December 15, 2010 11:58 AM  
**To:** Gallagher, Carol  
**Subject:** Davis-Besse Relicense Docket ID: NRC-2010-0298

DEC 16 AM 10:34

RECEIVED

Dec 15, 2010

Carol Gallagher

To Gallagher,

Ohioans are concerned about the environment, the rising costs of energy, and the dangers associated with nuclear power! However, that has not stopped First Energy from irresponsibly pursuing to get the Davis-Besse nuclear plant on Lake Erie relicensed to continue operation until 2037.

51-1-OL

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51-2-OS

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51-3-RW

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51-4-AL

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51-5-OL

Sincerely,

Christian George  
 1490 Brookforest Dr  
 Columbus, OH 43204-5029  
 (614) 274-7157

Commenter: Donna Emig

RULES AND DIRECTIVES  
BRANCH  
JAN 10

**Gallagher, Carol**

**From:** Sierra Club Membership Services [membership.services@sierraclub.org] on behalf of donna emig [donnaemig@sbcglobal.net]  
**Sent:** Thursday, December 16, 2010 10:12 AM  
**To:** Gallagher, Carol  
**Subject:** Davis-Besse Relicense Docket ID: NRC-2010-0298

THU DEC 16 AM 10:35

RECEIVED

Dec 16, 2010

Carol Gallagher

To Gallagher,

Ohioans are concerned about the environment, the rising costs of energy, and the dangers associated with nuclear power! However, that has not stopped First Energy from irresponsibly pursuing to get the Davis-Besse nuclear plant on Lake Erie relicensed to continue operation until 2037.

82-1-OL

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82-2-OS

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82-3-RW

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82-4-AL

Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis-Besse.

82-5-OL

Sincerely,

donna emig  
30023 Young Dr  
Gibraltar, MI 48173-9455

Commenter: Ben Shapiro

RULES AND DIRECTIVES  
BRANCH

**Gallagher, Carol**

**From:** Sierra Club Membership Services [membership.services@sierraclub.org] on behalf of Ben Shapiro [bensshapiro@gmail.com]  
**Sent:** Thursday, December 16, 2010 5:12 PM  
**To:** Gallagher, Carol  
**Subject:** Davis-Besse Relicense Docket ID: NRC-2010-0298

RECEIVED

Dec 16, 2010

Carol Gallagher

To Gallagher,

Ohioans are concerned about the environment, the rising costs of energy, and the dangers associated with nuclear power! However, that has not stopped First Energy from irresponsibly pursuing to get the Davis-Besse nuclear plant on Lake Erie relicensed to continue operation until 2037.

67-1-OL

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67-2-OS

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67-4-AL

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67-5-OL

Sincerely,

Ben Shapiro  
2100 W 32  
Cleveland, OH 44115  
(804) 543-4346

Commenter: Nick Mellis

**Gallagher, Carol**

RULES AND DIRECTIVES

FRANCH

10/01

**From:** Sierra Club Membership Services [membership.services@sierraclub.org] on behalf of Nick Mellis [nickmellis@gpnj.org]  
**Sent:** Monday, December 20, 2010 3:26 PM  
**To:** Gallagher, Carol  
**Subject:** Davis-Besse Relicense Docket ID: NRC-2010-0298

2010 DEC 21 AM 8:00

Dec 20, 2010

RECEIVED

Carol Gallagher

To Gallagher,

Ohioans are concerned about the environment, the rising costs of energy, and the dangers associated with nuclear power! However, that has not stopped First Energy from irresponsibly pursuing to get the Davis-Besse nuclear plant on Lake Erie relicensed to continue operation until 2037.

86-1-OL

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86-2-OS

**NUCLEAR ENERGY IS NOT CLEAN OR GREEN ENERGY!**

Every nuclear reactor generates about 20 tons of highly radioactive waste per year, and after 40 years of nuclear power, the U.S. still has not found an acceptable solution for the waste. The waste can cause cancer, birth defects, and even death. Nuclear power uses and pollutes significant amounts of water, while the mining, transportation, and enriching of uranium is carbon intensive which contributes to global warming.

86-3-RW

I do not want Davis-Besse to continue generating electricity and want the Nuclear Regulatory Commission to end the operating license for the plant. I care about the environment and support clean energy solutions such as energy efficiency and renewable power, and I know that Davis-Besse compromises my safety and the safety of my loved ones.

86-4-AL

Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis-Besse.

86-5-OL

Sincerely,

Nick Mellis  
135 Harmony Ave  
Lawrenceville, NJ 08648-4321  
(609) 791-9878

Commenter: Kathleen Bodnar

RULES AND DIRECTIVES  
BRANCH  
JAN 03

**Gallagher, Carol**

**From:** Sierra Club Membership Services [membership.services@sierraclub.org] on behalf of Kathleen Bodnar [kathybodnar@aol.com]  
**Sent:** Monday, January 03, 2011 11:24 AM  
**To:** Gallagher, Carol  
**Subject:** Davis-Besse Relicense Docket ID: NRC-2010-0298

2011 JAN -3 AM 11: 43

RECEIVED

Jan 3, 2011

Carol Gallagher

To Gallagher,

Ohioans are concerned about the environment, the rising costs of energy, and the dangers associated with nuclear power! However, that has not stopped First Energy from irresponsibly pursuing to get the Davis-Besse nuclear plant on Lake Erie relicensed to continue operation until 2037.

65-1-OL

**NO NUCLEAR POWER PLANT IS SAFE AND DAVIS-BESSE IS ONE OF THE WORST!**

In 2002 the Davis-Besse plant nearly melted down almost causing a nuclear disaster. Neither First Energy nor the Nuclear Regulatory Commission discovered an enormous rust hole in the reactor head until it was almost too late! According to the Nuclear Regulatory Commission, 2 of the top 5 most dangerous nuclear incidences since 1979 have happened at Davis-Besse.

65-2-OS

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Every nuclear reactor generates about 20 tons of highly radioactive waste per year, and after 40 years of nuclear power, the U.S. still has not found an acceptable solution for the waste. The waste can cause cancer, birth defects, and even death. Nuclear power uses and pollutes significant amounts of water, while the mining, transportation, and enriching of uranium is carbon intensive which contributes to global warming.

65-3-RW

I do not want Davis-Besse to continue generating electricity and want the Nuclear Regulatory Commission to end the operating license for the plant. I care about the environment and support clean energy solutions such as energy efficiency and renewable power, and I know that Davis-Besse compromises my safety and the safety of my loved ones.

65-4-AL

Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis-Besse.

65-5-OL

Sincerely,

Kathleen Bodnar  
2386 Roth Dr  
Cuyahoga Falls, OH 44221-3026  
(330) 922-0290

Commenter: Joan DeLauro

RULES AND DIRECTIVES  
BRANCH  
UNITED

**Gallagher, Carol**

**From:** Sierra Club Membership Services [membership.services@sierraclub.org] on behalf of Joan DeLauro [joandelauro@sbcglobal.net]  
**Sent:** Monday, January 03, 2011 7:39 PM  
**To:** Gallagher, Carol  
**Subject:** Davis-Besse Relicense Docket ID: NRC-2010-0298

2011 JAN -4 AM 7: 40

RECEIVED

Jan 3, 2011

Carol Gallagher

To Gallagher,

Ohioans are concerned about the environment, the rising costs of energy, and the dangers associated with nuclear power! However, that has not stopped First Energy from irresponsibly pursuing to get the Davis-Besse nuclear plant on Lake Erie relicensed to continue operation until 2037.

73-1-OL

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73-2-OS

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73-3-RW

I do not want Davis-Besse to continue generating electricity and want the Nuclear Regulatory Commission to end the operating license for the plant. I care about the environment and support clean energy solutions such as energy efficiency and renewable power, and I know that Davis-Besse compromises my safety and the safety of my loved ones.

73-4-AL

Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis-Besse.

73-5-OL

Sincerely,

Joan DeLauro  
2434 Queenston Rd  
Cleveland Hts, OH 44118-4316



Commenter: Virginia Douglas

RULES AND DIRECTIVES  
BRANCH  
JAN 03 2011

**Gallagher, Carol**

**From:** Sierra Club Membership Services [membership.services@sierraclub.org] on behalf of Virginia Douglas [ginny133@aol.com]  
**Sent:** Monday, January 03, 2011 4:39 PM  
**To:** Gallagher, Carol  
**Subject:** Davis-Besse Relicense Docket ID: NRC-2010-0298

2011 JAN -4 AM 7: 40

RECEIVED

Jan 3, 2011

Carol Gallagher

To Gallagher,

Ohioans are concerned about the environment, the rising costs of energy, and the dangers associated with nuclear power! However, that has not stopped First Energy from irresponsibly pursuing to get the Davis-Besse nuclear plant on Lake Erie relicensed to continue operation until 2037.

79-1-OL

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79-2-OS

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79-3-RW

I do not want Davis-Besse to continue generating electricity and want the Nuclear Regulatory Commission to end the operating license for the plant. I care about the environment and support clean energy solutions such as energy efficiency and renewable power, and I know that Davis-Besse compromises my safety and the safety of my loved ones.

79-4-AL

Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis-Besse.

79-5-OL

Sincerely,

Virginia Douglas  
133 Brandtson Ave  
Elyria, OH 44035-3931  
(440) 366-1333

Commenter: June Douglas

RULES AND DIRECTIVES  
EDWARD  
JAN 07

**Gallagher, Carol**

**From:** Sierra Club Membership Services [membership.services@sierraclub.org] on behalf of June Douglas [junedouglas1@yahoo.com]  
**Sent:** Friday, January 07, 2011 3:58 AM  
**To:** Gallagher, Carol  
**Subject:** Davis-Besse Relicense Docket ID: NRC-2010-0298

2011 JAN --7 AM 7: 59

RECEIVED

Jan 7, 2011

Carol Gallagher

To Gallagher,

Ohioans are concerned about the environment, the rising costs of energy, and the dangers associated with nuclear power! However, that has not stopped First Energy from irresponsibly pursuing to get the Davis-Besse nuclear plant on Lake Erie relicensed to continue operation until 2037.

76-1-OL

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76-2-OS

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76-3-RW

I do not want Davis-Besse to continue generating electricity and want the Nuclear Regulatory Commission to end the operating license for the plant. I care about the environment and support clean energy solutions such as energy efficiency and renewable power, and I know that Davis-Besse compromises my safety and the safety of my loved ones.

76-4-AL

Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis-Besse.

76-5-OL

Sincerely,

June Douglas  
318 Garfield Dr  
Port Clinton, OH 43452-1619

Commenter: Jeremy Bantz

RULES AND DIRECTIVES

**Gallagher, Carol**

**From:** Sierra Club Membership Services [membership.services@sierraclub.org] on behalf of Jeremy Bantz [jeremybantz@yahoo.com]  
**Sent:** Saturday, January 08, 2011 4:31 AM  
**To:** Gallagher, Carol  
**Subject:** Davis-Besse Relicense Docket ID: NRC-2010-0298

701 JAN 10 AM 9:08

RECEIVED

Jan 8, 2011

Carol Gallagher

To Gallagher,

Ohioans are concerned about the environment, the rising costs of energy, and the dangers associated with nuclear power! However, that has not stopped First Energy from irresponsibly pursuing to get the Davis-Besse nuclear plant on Lake Erie relicensed to continue operation until 2037.

55-1-OL

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55-2-OS

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55-3-RW

I do not want Davis-Besse to continue generating electricity and want the Nuclear Regulatory Commission to end the operating license for the plant. I care about the environment and support clean energy solutions such as energy efficiency and renewable power, and I know that Davis-Besse compromises my safety and the safety of potentially everyone that lives in the entire midwest. The risk is unacceptable.

55-4-AL

Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis-Besse.

55-5-OL

Sincerely,

Jeremy Bantz  
 6031 Perimeter Lakes Dr  
 Dublin, OH 43017-5209

Commenter: Leeza Perry

RULES AND DIRECTIVES  
BY NRC

**Gallagher, Carol**

**From:** Sierra Club Membership Services [membership.services@sierraclub.org] on behalf of Leeza Perry [leezajp4@yahoo.com]  
**Sent:** Thursday, January 13, 2011 4:43 PM  
**To:** Gallagher, Carol  
**Subject:** Davis-Besse Relicense Docket ID: NRC-2010-0298

JAN 14 AM 7:31

RECEIVED

Jan 13, 2011

Carol Gallagher

To Gallagher,

Ohioans are concerned about the environment, the rising costs of energy, and the dangers associated with nuclear power! However, that has not stopped First Energy from irresponsibly pursuing to get the Davis-Besse nuclear plant on Lake Erie relicensed to continue operation until 2037.

54-1-OL

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54-2-OS

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54-3-RW

I do not want Davis-Besse to continue generating electricity and want the Nuclear Regulatory Commission to end the operating license for the plant. I care about the environment and support clean energy solutions such as energy efficiency and renewable power, and I know that Davis-Besse compromises my safety and the safety of my loved ones.

54-4-AL

Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis-Besse.

54-5-OL

Sincerely,

Leeza Perry  
2339 Valley Rd  
Salem, OH 44460-9727  
(330) 942-7107

Commenter: Lance Wilson

RULES AND DIRECTIVES  
DIVISION

**Gallagher, Carol**

**From:** Sierra Club Membership Services [membership.services@sierraclub.org] on behalf of Lance Wilson [wtool128@aol.com]  
**Sent:** Thursday, January 20, 2011 7:44 PM  
**To:** Gallagher, Carol  
**Subject:** Davis-Besse Relicense Docket ID: NRC-2010-0298

2011 JAN 21 AM 8:16

RECEIVED

Jan 20, 2011

Carol Gallagher

To Gallagher,

Ohioans are concerned about the environment, the rising costs of energy, and the dangers associated with nuclear power! However, that has not stopped First Energy from irresponsibly pursuing to get the Davis-Besse nuclear plant on Lake Erie relicensed to continue operation until 2037.

84-1-OL

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84-2-OS

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84-3-RW

I do not want Davis-Besse to continue generating electricity and want the Nuclear Regulatory Commission to end the operating license for the plant. I care about the environment and support clean energy solutions such as energy efficiency and renewable power, and I know that Davis-Besse compromises my safety and the safety of my loved ones.

84-4-AL

Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis-Besse.

84-5-OL

Sincerely,

Lance Wilson  
 53 Village Green Dr  
 Crooksville, OH 43731-9763  
 (740) 982-2445

Commenter: Erika Agner

**Gallagher, Carol**

---

**From:** Sierra Club Membership Services [membership.services@sierraclub.org] on behalf of Erika Agner [erika\_lynn2006@hotmail.com]  
**Sent:** Wednesday, February 09, 2011 2:39 PM  
**To:** Gallagher, Carol  
**Subject:** Davis-Besse Relicense Docket ID: NRC-2010-0298

Feb 9, 2011

Carol Gallagher

To Gallagher,

Ohioans are concerned about the environment, the rising costs of energy, and the dangers associated with nuclear power! However, that has not stopped First Energy from irresponsibly pursuing to get the Davis-Besse nuclear plant on Lake Erie relicensed to continue operation until 2037.

**NO NUCLEAR POWER PLANT IS SAFE AND DAVIS-BESSE IS ONE OF THE WORST!**

In 2002 the Davis-Besse plant nearly melted down almost causing a nuclear disaster. Neither First Energy nor the Nuclear Regulatory Commission discovered an enormous rust hole in the reactor head until it was almost too late! According to the Nuclear Regulatory Commission, 2 of the top 5 most dangerous nuclear incidences since 1979 have happened at Davis-Besse.

**NUCLEAR ENERGY IS NOT CLEAN OR GREEN ENERGY!**

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I do not want Davis-Besse to continue generating electricity and want the Nuclear Regulatory Commission to end the operating license for the plant. I care about the environment and support clean energy solutions such as energy efficiency and renewable power, and I know that Davis-Besse compromises my safety and the safety of my loved ones.

Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis-Besse.

Sincerely,

Erika Agner  
215 W Main St  
Leipsic, OH 45856-1133

RECEIVED  
FEB - 9 PM 3:00  
RULES & REGULATIONS  
NRC

50-1-OL

50-2-OS

50-3-RW

50-4-AL

50-5-OL

Commenter: Liz Loring

**Gallagher, Carol**

**From:** Sierra Club Membership Services [membership.services@sierraclub.org] on behalf of Liz Loring [lizniche@gmail.com]  
**Sent:** Sunday, February 13, 2011 10:23 AM  
**To:** Gallagher, Carol  
**Subject:** Davis-Besse Relicense Docket ID: NRC-2010-0298

Feb 13, 2011

Carol Gallagher

To Gallagher,

Ohioans are concerned about the environment, the rising costs of energy, and the dangers associated with nuclear power! However, that has not stopped First Energy from irresponsibly pursuing to get the Davis-Besse nuclear plant on Lake Erie relicensed to continue operation until 2037.

83-1-OL

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83-2-OS

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83-3-RW

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83-4-AL

Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis-Besse.

83-5-OL

Sincerely,

Liz Loring  
 2781 Westbrook Dr  
 Req  
 Cincinnati, OH 45211-7614  
 (513) 460-5022

Commenter: Cate Renner

RULES AND DIRECTIVES  
BRANCH

**Gallagher, Carol**

**From:** Sierra Club Ohio Chapter [christian.george@sierraclub.org] on behalf of cate renner [flamingpi6@aol.com]  
**Sent:** Friday, April 22, 2011 12:50 PM  
**To:** Gallagher, Carol  
**Subject:** Davis-Besse Relicense Docket ID: NRC-2010-0298

2011 APR 22 PM 12:54

Apr 22, 2011

Carol Gallagher

To Gallagher,

9/20/2010  
75 FR 57299 (27)

RECEIVED

Ohioans are concerned about the environment, the rising costs of energy, and the dangers associated with nuclear power! However, that has not stopped First Energy from irresponsibly pursuing to get the Davis-Besse nuclear plant on Lake Erie relicensed to continue operation until 2037.

62-1-OL

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62-2-OS

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62-3-RW

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62-4-AL

Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis-Besse.

62-5-OL

Sincerely,

cate renner  
250 Henry St  
Dayton, OH 45403-2316  
(937) 222-2736

SUNSI Review Complete  
Template = ADM-013

1

E-RIDS = ADM-03  
Add = P. Cooper  
(Pec)



Commenter: George M Williams

Gallagher, Carol

RULES AND DIRECTIVES  
BRANCH  
CONF

**From:** Sierra Club Membership Services [membership.services@sierraclub.org] on behalf of George M. Williams [gwilliams59@woh.rr.com]  
**Sent:** Wednesday, January 05, 2011 3:56 PM  
**To:** Gallagher, Carol  
**Subject:** Davis-Besse Relicense Docket ID: NRC-2010-0298

2011 JAN -6 AM 7:33

Jan 5, 2011

Carol Gallagher

To Gallagher,

Ohioans are concerned about the environment, the rising costs of energy, and the dangers associated with nuclear power! However, that has not stopped First Energy from irresponsibly pursuing to get the Davis-Besse nuclear plant on Lake Erie relicensed to continue operation until 2037.

81-1-OL

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81-2-OS

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81-3-RW

I do not want Davis-Besse to continue generating electricity and want the Nuclear Regulatory Commission to end the operating license for the plant. I care about the environment and support clean energy solutions such as energy efficiency and renewable power, and I know that Davis-Besse compromises my safety and the safety of my loved ones.

81-4-AL

We are moving to Westlake, Oh. soon and don't want to have to worry about unsafe Davis-besse blowing up near us.

I have read this petition and agree with it all.

Thank you.

Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis-Besse.

Sincerely,

George M. Williams  
309 E Edgewood St  
Sidney, OH 45365-1603

81-5-OL

SUNSF Review Complete  
Temp Code = ADM-013

1 KREDS = ADM-03  
add = p. Cooper (pec)

Commenter: Amanda Baldino

Gallagher, Carol

RULES AND DIRECTIVES  
BRANCH

From: Sierra Club Membership Services [membership.services@sierraclub.org] on behalf of  
Amanda Baldino [sunshineinmyeyes47@yahoo.com]  
Sent: Wednesday, January 05, 2011 10:56 PM  
To: Gallagher, Carol  
Subject: Davis-Besse Relicense Docket ID: NRC-2010-0298

2011 JAN -6 AM 7:33

Jan 5, 2011

Carol Gallagher

To Gallagher,

9/20/2010  
75FR 5/299

22

RECEIVED

Ohioans are concerned about the environment, the rising costs of energy, and the dangers associated with nuclear power! However, that has not stopped First Energy from irresponsibly pursuing to get the Davis-Besse nuclear plant on Lake Erie relicensed to continue operation until 2037.

52-1-OL

NO NUCLEAR POWER PLANT IS SAFE AND DAVIS-BESSE IS ONE OF THE WORST!

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52-2-OS

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52-3-RW

I do not want Davis-Besse to continue generating electricity and want the Nuclear Regulatory Commission to end the operating license for the plant. I care about the environment and support clean energy solutions such as energy efficiency and renewable power, and I know that Davis-Besse compromises my safety and the safety of my loved ones.

52-4-AL

This concerns me much.

Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis-Besse.

52-5-OL

Sincerely,

Amanda Baldino  
9645 Feather Wood Ln  
Dayton, OH 45458-9309

SOUSI Review Complete  
Template = ADM-013

ERIDS = ADM-03  
1. Call = P. Cooper (pec)

Commenter: Joan Lang

RULES AND DIRECTIVES  
BRANCH  
1/1/11

**Gallagher, Carol**

**From:** Sierra Club Membership Services [membership.services@sierraclub.org] on behalf of Joan Lang [jlang@csjoseph.org]  
**Sent:** Friday, January 07, 2011 9:59 AM  
**To:** Gallagher, Carol  
**Subject:** Davis-Besse Relicense Docket ID: NRC-2010-0298

2011 JAN -7 AM 10:39

Jan 7, 2011

Carol Gallagher

To Gallagher,

Ohioans are concerned about the environment, the rising costs of energy, and the dangers associated with nuclear power! However, that has not stopped First Energy from irresponsibly pursuing to get the Davis-Besse nuclear plant on Lake Erie relicensed to continue operation until 2037.

74-1-OL

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74-2-OS

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74-3-RW

I do not want Davis-Besse to continue generating electricity and want the Nuclear Regulatory Commission to end the operating license for the plant.

74-4-AL

I care about the environment and support clean energy solutions such as energy efficiency and renewable power, and I know that Davis-Besse compromises my safety and the safety of my loved ones.

Davis-Besse not safe and we seem to want to wait until something really disastrous happens before anything is done--when it is too late!

Nuclear energy is NOT clean energy and we have the perpetual problem of what to do with nuclear waste.

74-5-OL

Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis-Besse.

Sincerely,

Joan Lang  
 3430 Rocky River Dr  
 Cleveland, OH 44111-2954

SONSI Review Complete  
 Template = ADM-013

E-RIDS = ADM-013  
 1. Call = P. Cooper (pec)

Commenter: Susan Jones

RULES AND DIRECTIVES  
BRANCH :  
USNFC

**Gallagher, Carol**

**From:** Sierra Club Membership Services [membership-services@sierraclub.org] on behalf of Susan Jones [jones8204@roadrunner.com]  
**Sent:** Monday, January 17, 2011 1:25 AM  
**To:** Gallagher, Carol  
**Subject:** Davis-Besse Relicense Docket ID: NRC-2010-0298

2011 JAN 18 AM 10: 27

RECEIVED

Jan 17, 2011

Carol Gallagher

To Gallagher,

9/20/2010  
75 FR 57299  
24

Ohioans are concerned about the environment, the rising costs of energy, and the dangers associated with nuclear power! However, that has not stopped First Energy from irresponsibly pursuing to get the Davis-Besse nuclear plant on Lake Erie relicensed to continue operation until 2037.

68-1-OL

**NO NUCLEAR POWER PLANT IS SAFE AND DAVIS-BESSE IS ONE OF THE WORST!**

In 2002 the Davis-Besse plant nearly melted down almost causing a nuclear disaster. Neither First Energy nor the Nuclear Regulatory Commission discovered an enormous rust hole in the reactor head until it was almost too late! According to the Nuclear Regulatory Commission, 2 of the top 5 most dangerous nuclear incidences since 1979 have happened at Davis-Besse.

68-2-OS

**NUCLEAR ENERGY IS NOT CLEAN OR GREEN ENERGY!**

Every nuclear reactor generates about 20 tons of highly radioactive waste per year, and after 40 years of nuclear power, the U.S. still has not found an acceptable solution for the waste. The waste can cause cancer, birth defects, and even death. Nuclear power uses and pollutes significant amounts of water, while the mining, transportation, and enriching of uranium is carbon intensive which contributes to global warming.

68-3-RW

I do not want Davis-Besse to continue generating electricity and want the Nuclear Regulatory Commission to end the operating license for the plant. I care about the environment and support clean energy solutions such as energy efficiency and renewable power, and I know that Davis-Besse compromises my safety and the safety of my loved ones. So Please stop the relicense of this very dangerous power power plant it is not worth risking the lives of millions of people for energy when there are safer and cheaper options out there.

68-4-AL

Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis-Besse.

68-5-OL

Sincerely,

Susan Jones  
241 McKinley Ave  
Newcomerstown, OH 43832-1145

SUDSI Review Complete  
Template = ADM-013

ERIDS = ADM-03  
All = p. Cooper

Commenter: George M Williams

RULES AND DIRECTIVES  
BRANCH

Gallagher, Carol

From: Sierra Club Membership Services [membership.services@sierraclub.org] on behalf of George M. Williams [gwilliams59@woh.rr.com]  
Sent: Saturday, January 15, 2011 1:53 PM 2011 JAN 18 AM 10: 27  
To: Gallagher, Carol  
Subject: Davis-Besse Relicense Docket ID: NRC-2010-0298

Jan 15, 2011

Carol Gallagher

To Gallagher,

Ohioans are concerned about the environment, the rising costs of energy, and the dangers associated with nuclear power! However, that has not stopped First Energy from irresponsibly pursuing to get the Davis-Besse nuclear plant on Lake Erie relicensed to continue operation until 2037.

NO NUCLEAR POWER PLANT IS SAFE AND DAVIS-BESSE IS ONE OF THE WORST!

In 2002 the Davis-Besse plant nearly melted down almost causing a nuclear disaster. Neither First Energy nor the Nuclear Regulatory Commission discovered an enormous rust hole in the reactor head until it was almost too late! According to the Nuclear Regulatory Commission, 2 of the top 5 most dangerous nuclear incidences since 1979 have happened at Davis-Besse.

NUCLEAR ENERGY IS NOT CLEAN OR GREEN ENERGY!

Every nuclear reactor generates about 20 tons of highly radioactive waste per year, and after 40 years of nuclear power, the U.S. still has not found an acceptable solution for the waste. The waste can cause cancer, birth defects, and even death. Nuclear power uses and pollutes significant amounts of water, while the mining, transportation, and enriching of uranium is carbon intensive which contributes to global warming.

I do not want Davis-Besse to continue generating electricity and want the Nuclear Regulatory Commission to end the operating license for the plant. I care about the environment and support clean energy solutions such as energy efficiency and renewable power, and I know that Davis-Besse compromises my safety and the safety of my loved ones.

Thank you for your prompt action on this matter for the safety and health of the People of Ohio.

(I have read this petition and agree with it all !!!!)

Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis-Besse.

Sincerely,

George M. Williams  
309 E Edgewood St  
Sidney, OH 45365-1603

RECEIVED

81-6-OL

81-7-OS

81-8-RW

81-9-AL

81-10-OL

SVDSI Review Complete  
Template = ADH-013

1 E-RIDS = ADH-03  
Cell = P. Cooper (pec)

Commenter: Leonard Bildstein

**Gallagher, Carol**RULES AND DIRECTIVES  
BRANCH

**From:** Sierra Club Membership Services [membership.services@sierraclub.org] on behalf of leonard bildstein [leonardbildstein@yahoo.com]  
**Sent:** Friday, January 21, 2011 12:45 PM  
**To:** Gallagher, Carol  
**Subject:** Davis-Besse Relicense Docket ID: NRC-2010-0298

2011 JAN 21 PM 1: 50

Jan 21, 2011

Carol Gallagher

To Gallagher,

Ohioans are concerned about the environment, the rising costs of energy, and the dangers associated with nuclear power! However, that has not stopped First Energy from irresponsibly pursuing to get the Davis-Besse nuclear plant on Lake Erie relicensed to continue operation until 2037.

**NO NUCLEAR POWER PLANT IS SAFE AND DAVIS-BESSE IS ONE OF THE WORST!**

In 2002 the Davis-Besse plant nearly melted down almost causing a nuclear disaster. Neither First Energy nor the Nuclear Regulatory Commission discovered an enormous rust hole in the reactor head until it was almost too late! According to the Nuclear Regulatory Commission, 2 of the top 5 most dangerous nuclear incidences since 1979 have happened at Davis-Besse.

**NUCLEAR ENERGY IS NOT CLEAN OR GREEN ENERGY!**

Every nuclear reactor generates about 20 tons of highly radioactive waste per year, and after 40 years of nuclear power, the U.S. still has not found an acceptable solution for the waste. The waste can cause cancer, birth defects, and even death. Nuclear power uses and pollutes significant amounts of water, while the mining, transportation, and enriching of uranium is carbon intensive which contributes to global warming.

I do not want Davis-Besse to continue generating electricity and want the Nuclear Regulatory Commission to end the operating license for the plant. I care about the environment and support clean energy solutions such as energy efficiency and renewable power, and I know that Davis-Besse compromises my safety and the safety of my loved ones. This plant has the worst safety record in the U.S.A. and should be closed! You have no right to continue operating this unsafe plant. We have two coal plants in this area that produce more than enough electricity for this area, and our safe!

Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety, and help protect Ohioans from a potential disaster at Davis-Besse.

Sincerely,

leonard bildstein  
 766 Centennial St  
 Geneva, OH 44041-9221  
 (440) 466-5952

SUNSI Review Complete  
 Template = ADM-013

1 E-RIDS = ADM-03  
 Call = J. Cooper (pec)

61-1-OL

61-2-OS

61-3-RW

61-4-AL

61-5-OL

Commenter: Mike Fremont

RULES AND DIRECTIVES  
BRANCH  
USNRC

**Gallagher, Carol**

**From:** Sierra Club Membership Services [membership.services@sierraclub.org] on behalf of Mike Fremont [mike@mikefremont.org]  
**Sent:** Tuesday, December 07, 2010 11:23 PM  
**To:** Gallagher, Carol  
**Subject:** Davis-Besse Relicense Docket ID: NRC-2010-0298

2010 DEC -8 AM 7: 51

Dec 7, 2010

Carol Gallagher

To Gallagher,

Ohioans are concerned about the environment, the rising costs of energy, and the dangers associated with nuclear power! However, that has not stopped First Energy from irresponsibly pursuing to get the Davis-Besse nuclear plant on Lake Erie relicensed to continue operation until 2037.

85-1-OL

**NO NUCLEAR POWER PLANT IS SAFE AND DAVIS-BESSE IS ONE OF THE WORST!**

In 2002 the Davis-Besse plant nearly melted down almost causing a nuclear disaster. Neither First Energy nor the Nuclear Regulatory Commission discovered an enormous rust hole in the reactor head until it was almost too late! According to the Nuclear Regulatory Commission, 2 of the top 5 most dangerous nuclear incidences since 1979 have happened at Davis-Besse.

85-2-OS

**NUCLEAR ENERGY IS NOT CLEAN OR GREEN ENERGY!**

Every nuclear reactor generates about 20 tons of highly radioactive waste per year, and after 40 years of nuclear power, the U.S. still has not found an acceptable solution for the waste. The waste can cause cancer, birth defects, and even death. Nuclear power uses and pollutes significant amounts of water, while the mining, transportation, and enriching of uranium is carbon intensive which contributes to global warming.

85-3-RW

I do not want Davis-Besse to continue generating electricity and want the Nuclear Regulatory Commission to end the operating license for the plant. I care about the environment and support clean energy solutions such as energy efficiency and renewable power, and I know that Davis-Besse compromises my safety and the safety of my loved ones.

In the early 80's Cincinnati's Zimmer Nuclear Plant was adjudged, according to The Wall Street Journal, to be the worst-built nuke plant in the U.S., for a number of reasons, one being that much of the crucial reactor steel was bought from a local scrap dealer. It could have ruined the Ohio River downstream from Cincinnati all the way to New Orleans. Davis Besse could wreck Lake Erie and quite a land area around Toledo.

85-4-AL

Save us from that! We can do it cheaper, safer and cleaner with windmills in the lake.

Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis-Besse.

85-5-OL

Sincerely,

Mike Fremont  
 816 Van Nes Dr  
 Cincinnati, OH 45246-4307  
 (513) 258-1356

SUNST BENCH Complete  
 Template = ADM-213

E-REDS = ADM-23  
 Old = f. Cooper (pe)

Commenter: Stephen & Connie Caruso

RULES AND DIRECTIVES  
BRANCH  
USNRC

**Gallagher, Carol**

**From:** Sierra Club Membership Services [membership.services@sierraclub.org] on behalf of Stephen and Connie Caruso [dael4@columbus.rr.com]  
**Sent:** Wednesday, December 08, 2010 12:25 AM  
**To:** Gallagher, Carol  
**Subject:** Davis-Besse Relicense Docket ID: NRC-2010-0298

2010 DEC -8 AM 7: 51

Dec 7, 2010

Carol Gallagher

To Gallagher,

9/20/2010

15 FR 57299

RECEIVED

14

Ohioans are concerned about the environment, the rising costs of energy, and the dangers associated with nuclear power! However, that has not stopped First Energy from irresponsibly pursuing to get the Davis-Besse nuclear plant on Lake Erie relicensed to continue operation until 2037.

70-1-OL

NO NUCLEAR POWER PLANT IS SAFE AND DAVIS-BESSE IS ONE OF THE WORST!

In 2002 the Davis-Besse plant nearly melted down almost causing a nuclear disaster. Neither First Energy nor the Nuclear Regulatory Commission discovered an enormous rust hole in the reactor head until it was almost too late! According to the Nuclear Regulatory Commission, 2 of the top 5 most dangerous nuclear incidences since 1979 have happened at Davis-Besse.

70-2-OS

NUCLEAR ENERGY IS NOT CLEAN OR GREEN ENERGY!

Every nuclear reactor generates about 20 tons of highly radioactive waste per year, and after 40 years of nuclear power, the U.S. still has not found an acceptable solution for the waste. The waste can cause cancer, birth defects, and even death. Nuclear power uses and pollutes significant amounts of water, while the mining, transportation, and enriching of uranium is carbon intensive which contributes to global warming.

70-3-RW

I do not want Davis-Besse to continue generating electricity and want the Nuclear Regulatory Commission to end the operating license for the plant. I care about the environment and support clean energy solutions such as energy efficiency and renewable power, and I know that Davis-Besse compromises my safety and the safety of my loved ones.

70-4-AL

These plants have been a financial leach on the people long enough!

Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis-Besse.

70-5-OL

Sincerely,

Stephen and Connie Caruso  
6463 Blacks Rd SW  
Pataskala, OH 43062-7756

SUNSI Review Complete  
Template = ADM-013

1 E-IDS = ADM-03  
Cell = J. Cinger (pec)



Commenter: Leslie Stansbery

RULES AND DIRECTIVES  
BRANCH  
USNRC

**Gallagher, Carol**

**From:** Sierra Club Membership Services [membership.services@sierraclub.org] on behalf of Leslie Stansbery [llpstansbery@wowway.com]  
**Sent:** Wednesday, December 08, 2010 1:22 AM  
**To:** Gallagher, Carol  
**Subject:** Davis-Besse Relicense-Docket ID: NRC-2010-0298

2ND DEC -8 AM 7: 51

Dec 8, 2010

Carol Gallagher

To Gallagher,

Ohioans are concerned about the environment, the rising costs of energy, and the dangers associated with nuclear power! However, that has not stopped First Energy from irresponsibly pursuing to get the Davis-Besse nuclear plant on Lake Erie relicensed to continue operation until 2037.

NO NUCLEAR POWER PLANT IS SAFE AND DAVIS-BESSE IS ONE OF THE WORST!

In 2002 the Davis-Besse plant nearly melted down almost causing a nuclear disaster. Neither First Energy nor the Nuclear Regulatory Commission discovered an enormous rust hole in the reactor head until it was almost too late! According to the Nuclear Regulatory Commission, 2 of the top 5 most dangerous nuclear incidences since 1979 have happened at Davis-Besse.

NUCLEAR ENERGY IS NOT CLEAN OR GREEN ENERGY!

Every nuclear reactor generates about 20 tons of highly radioactive waste per year, and after 40 years of nuclear power, the U.S. still has not found an acceptable solution for the waste. The waste can cause cancer, birth defects, and even death. Nuclear power uses and pollutes significant amounts of water, while the mining, transportation, and enriching of uranium is carbon intensive which contributes to global warming.

I do not want Davis-Besse to continue generating electricity and want the Nuclear Regulatory Commission to end the operating license for the plant. I care about the environment and support clean energy solutions such as energy efficiency and renewable power, and I know that Davis-Besse compromises my safety and the safety of my loved ones.

Now is not the time to expand nuclear energy in Ohio.

Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis-Besse.

Sincerely,

Leslie Stansbery  
 526 Van Heyde Pl  
 Columbus, OH 43209-2271  
 (614) 231-6954

RECEIVED

9/22/2010

75 FR 57299

15

69-1-OL

69-2-OS

69-3-RW

69-4-AL

69-5-OL

SUNSI Review Complete  
 Template = ADM-D3

E-RIDS = ADM-D3  
 1. All = J. Cooper (Pec)

Commenter: Karen Hansen

RULES AND DIRECTIVES  
BRANCH  
USNRC

**Gallagher, Carol**

**From:** Sierra Club Membership Services [membership.services@sierraclub.org] on behalf of Karen Hansen [klh.ohio@gmail.com]  
**Sent:** Tuesday, December 07, 2010 8:53 PM  
**To:** Gallagher, Carol  
**Subject:** Davis-Besse Relicense Docket ID: NRC-2010-0298

2010 DEC -8 AM 7:50

Dec 7, 2010

Carol Gallagher

To Gallagher,

9/20/2010  
45 FR 57299  
16

RECEIVED

Ohioans are concerned about the environment, the rising costs of energy, and the dangers associated with nuclear power! However, that has not stopped First Energy from irresponsibly pursuing to get the Davis-Besse nuclear plant on Lake Erie relicensed to continue operation until 2037.

63-1-OL

**NO NUCLEAR POWER PLANT IS SAFE AND DAVIS-BESSE IS ONE OF THE WORST!**

In 2002 the Davis-Besse plant nearly melted down almost causing a nuclear disaster. Neither First Energy nor the Nuclear Regulatory Commission discovered an enormous rust hole in the reactor head until it was almost too late! According to the Nuclear Regulatory Commission, 2 of the top 5 most dangerous nuclear incidences since 1979 have happened at Davis-Besse.

63-2-OS

**NUCLEAR ENERGY IS NOT CLEAN OR GREEN ENERGY!**

Every nuclear reactor generates about 20 tons of highly radioactive waste per year, and after 40 years of nuclear power, the U.S. still has not found an acceptable solution for the waste. The waste can cause cancer, birth defects, and even death. Nuclear power uses and pollutes significant amounts of water, while the mining, transportation, and enriching of uranium is carbon intensive which contributes to global warming.

63-3-RW

There have been too many near-disasters at this plant. This, because of its proximity to the Great Lakes, is unconscionable! To continue to put resources into this risky plant and to continue to endure the toxic side effects is insane! We should be putting all our energy investments into clean, safe, green alternatives, and that does NOT include nuclear power!

63-4-AL

Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis-Besse.

63-5-OL

Sincerely,

Karen Hansen  
145 S Monroe Ave  
Columbus, OH 43205-1085

SUNSI Review Complete  
Template = AD-1-013

ERFDS = AD-1-013  
Call = f. Cooper (pec)

Commenter: Inez George

RULES AND DIRECTIVES  
BRANCH  
USNRC

**Gallagher, Carol**

**From:** Sierra Club Membership Services [membership.services@sierraclub.org] on behalf of Inez George [dg743@sbcglobal.net]  
**Sent:** Wednesday, December 08, 2010 8:27 AM  
**To:** Gallagher, Carol  
**Subject:** Davis-Besse Relicense Docket ID: NRC-2010-0298

2010 DEC -8 AM 8:45

Dec 8, 2010

Carol Gallagher

To Gallagher,

Ohioans are concerned about the environment, the rising costs of energy, and the dangers associated with nuclear power! However, that has not stopped First Energy from irresponsibly pursuing to get the Davis-Besse nuclear plant on Lake Erie relicensed to continue operation until 2037.

NO NUCLEAR POWER PLANT IS SAFE AND DAVIS-BESSE IS ONE OF THE WORST!

In 2002 the Davis-Besse plant nearly melted down almost causing a nuclear disaster. Neither First Energy nor the Nuclear Regulatory Commission discovered an enormous rust hole in the reactor head until it was almost too late! According to the Nuclear Regulatory Commission, 2 of the top 5 most dangerous nuclear incidences since 1979 have happened at Davis-Besse.

NUCLEAR ENERGY IS NOT CLEAN OR GREEN ENERGY!

Every nuclear reactor generates about 20 tons of highly radioactive waste per year, and after 40 years of nuclear power, the U.S. still has not found an acceptable solution for the waste. The waste can cause cancer, birth defects, and even death. Nuclear power uses and pollutes significant amounts of water, while the mining, transportation, and enriching of uranium is carbon intensive which contributes to global warming.

I do not want Davis-Besse to continue generating electricity and want the Nuclear Regulatory Commission to end the operating license for the plant. I care about the environment and support clean energy solutions such as energy efficiency and renewable power, and I know that Davis-Besse compromises my safety and the safety of my loved ones.

Until nuclear power can be made safe for the environment by solving the waste problem, I do not want it to continue in operation.

Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis-Besse.

Sincerely,

Inez George  
1043 S Roosevelt Ave  
Bexley, OH 43209-2544  
(614) 338-0507

SONSI Review Complete  
Template = ADM-013

ERIDS = ADM-03  
1. Add = J. Cooper (pec)

53-1-OL

53-2-OS

53-3-RW

53-4-AL

53-5-OL

Commenter: Natalie Schafrath

RULES AND DIRECTIVES  
BRANCH  
LICENSING**Gallagher, Carol**

**From:** Sierra Club Membership Services [membership.services@sierraclub.org] on behalf of Natalie Schafrath [nschafrath@hotmail.com]  
**Sent:** Wednesday, December 08, 2010 11:35 AM 2010 DEC -8 PM 1: 27  
**To:** Gallagher, Carol  
**Subject:** Davis-Besse Relicense Docket ID: NRC-2010-0298

Dec 8, 2010

Carol Gallagher

To Gallagher,

Ohioans are concerned about the environment, the rising costs of energy, and the dangers associated with nuclear power! However, that has not stopped First Energy from irresponsibly pursuing to get the Davis-Besse nuclear plant on Lake Erie relicensed to continue operation until 2037.

NO NUCLEAR POWER PLANT IS SAFE AND DAVIS-BESSE IS ONE OF THE WORST!

In 2002 the Davis-Besse plant nearly melted down almost causing a nuclear disaster. Neither First Energy nor the Nuclear Regulatory Commission discovered an enormous rust hole in the reactor head until it was almost too late! According to the Nuclear Regulatory Commission, 2 of the top 5 most dangerous nuclear incidences since 1979 have happened at Davis-Besse.

NUCLEAR ENERGY IS NOT CLEAN OR GREEN ENERGY!

Every nuclear reactor generates about 20 tons of highly radioactive waste per year, and after 40 years of nuclear power, the U.S. still has not found an acceptable solution for the waste. The waste can cause cancer, birth defects, and even death. Nuclear power uses and pollutes significant amounts of water, while the mining, transportation, and enriching of uranium is carbon intensive which contributes to global warming.

It's high time we step up our efforts to help protect the future generations by doing what we can to ensure a safe environment for species diversity. We can not live in this world without being connected to the web of life that exists in every ecosystem. The nuclear waste generated from this plan would not only effect ourselves, and our children, but every species that struggles to survive as well.

As someone who is SUPPOSE to represent the demands of their constituents I hope it is clear to you that Ohioans DON'T AGREE with this form of energy!

Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis-Besse.

Sincerely,

Natalie Schafrath  
 125 W Blake Ave Apt B  
 Columbus, OH 43202-2826

RECEIVED

9/20/2010  
 75 FR 57299  
 18

64-1-OL

64-2-OS

64-3-RW

64-4-AL

64-5-OL

SONSI Review Complete  
 Template = ADM-013

1

F-REDS-ADM-23  
 All = P. Cooper (PCC)

Commenter: David Greene

RULES AND DIRECTIVES  
BRANCH  
USNRC**Gallagher, Carol**

**From:** Sierra Club Membership Services [membership.services@sierraclub.org] on behalf of David Greene [dgreene624@yahoo.com]  
**Sent:** Thursday, December 09, 2010 5:30 PM  
**To:** Gallagher, Carol  
**Subject:** Davis-Besse Relicense Docket ID: NRC-2010-0298

2010 DEC 13 AM 9:41

Dec 9, 2010

Carol Gallagher

To Gallagher,

Ohioans are concerned about the environment, the rising costs of energy, and the dangers associated with nuclear power! However, that has not stopped First Energy from irresponsibly pursuing to get the Davis-Besse nuclear plant on Lake Erie relicensed to continue operation until 2037.

NO NUCLEAR POWER PLANT IS SAFE AND DAVIS-BESSE IS ONE OF THE WORST!

In 2002 the Davis-Besse plant nearly melted down almost causing a nuclear disaster. Neither First Energy nor the Nuclear Regulatory Commission discovered an enormous rust hole in the reactor head until it was almost too late! According to the Nuclear Regulatory Commission, 2 of the top 5 most dangerous nuclear incidences since 1979 have happened at Davis-Besse.

NUCLEAR ENERGY IS NOT CLEAN OR GREEN ENERGY!

Every nuclear reactor generates about 20 tons of highly radioactive waste per year, and after 40 years of nuclear power, the U.S. still has not found an acceptable solution for the waste. The waste can cause cancer, birth defects, and even death. Nuclear power uses and pollutes significant amounts of water, while the mining, transportation, and enriching of uranium is carbon intensive which contributes to global warming.

The Davis-Besse power plant must stop generating electricity and the Nuclear Regulatory Commission must end the operating license for the plant. In 2002 the Davis-Besse plant nearly melted down almost causing a nuclear disaster. Neither First Energy nor the Nuclear Regulatory Commission discovered an enormous rust hole in the reactor head until it was almost too late! According to the Nuclear Regulatory Commission, 2 of the top 5 most dangerous nuclear incidences since 1979 have happened at Davis-Besse. Nuclear power has too many problems from waste to extreme expense to oversight. This is not an environmentally sound solution.

I support clean energy solutions such as energy efficiency and renewable power. The Davis-Besse plant compromises my safety and the safety of my loved ones. Nuclear power uses and pollutes significant amounts of water, while the mining, transportation, and enriching of uranium is carbon intensive which contributes to global warming.

Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis-Besse.

Sincerely,

David Greene  
 806 Francis Ave  
 Columbus, OH 43209-5412

*SUNSI Review Complete*  
*Template = ADM-013*

*E-REDS = ADM-013*  
*Cell = p. Cooper (pec)*

Commenter: Tekla Lewin

RULES AND DIRECTIVES  
BRANCH

Gallagher, Carol

From: Sierra Club Membership Services [membership.services@sierraclub.org] on behalf of Tekla Lewin [tll@wideopenwest.com]  
Sent: Thursday, December 09, 2010 5:59 PM  
To: Gallagher, Carol  
Subject: Davis-Besse Relicense Docket ID: NRC-2010-0298

2010 DEC 13 AM 9:41

Dec 9, 2010

Carol Gallagher

To Gallagher,

9/20/2010  
75 FR 57299

20

RECEIVED

Ohioans are concerned about the environment, the rising costs of energy, and the dangers associated with nuclear power! However, that has not stopped First Energy from irresponsibly pursuing to get the Davis-Besse nuclear plant on Lake Erie relicensed to continue operation until 2037.

77-1-OL

NO NUCLEAR POWER PLANT IS SAFE AND DAVIS-BESSE IS ONE OF THE WORST!

In 2002 the Davis-Besse plant nearly melted down almost causing a nuclear disaster. Neither First Energy nor the Nuclear Regulatory Commission discovered an enormous rust hole in the reactor head until it was almost too late! According to the Nuclear Regulatory Commission, 2 of the top 5 most dangerous nuclear incidences since 1979 have happened at Davis-Besse.

77-2-OS

NUCLEAR ENERGY IS NOT CLEAN OR GREEN ENERGY!

Every nuclear reactor generates about 20 tons of highly radioactive waste per year, and after 40 years of nuclear power, the U.S. still has not found an acceptable solution for the waste. The waste can cause cancer, birth defects, and even death. Nuclear power uses and pollutes significant amounts of water, while the mining, transportation, and enriching of uranium is carbon intensive which contributes to global warming.

77-3-RW

Davis-Besse should not continue generating electricity; I urge the Nuclear Regulatory Commission to end the operating license for the plant. I care about the environment and support clean energy solutions such as energy efficiency and renewable power, and I know that Davis-Besse compromises my safety and the safety of my loved ones.

77-4-AL

Davis-Besse is far too dangerous.

77-5-OL

Dear Nuclear Regulatory Commission, please say NO to Davis-Besse! Make them accountable for the lapses in safety and help protect Ohioans from a potential disaster at Davis-Besse.

Sincerely,

Tekla Lewin  
5100 Kingshill Dr  
Columbus, OH 43229-5564

SUNSI Review Complete  
Template = ADM-013

1

ERDS = ADM-03  
All = J. Cooper (per)

**APPENDIX B**  
**NATIONAL ENVIRONMENTAL POLICY ACT ISSUES FOR LICENSE**  
**RENEWAL OF NUCLEAR POWER PLANTS**





## **B NATIONAL ENVIRONMENTAL POLICY ACT ISSUES FOR LICENSE RENEWAL OF NUCLEAR POWER PLANTS**

NUREG-1437, *Generic Environmental Impact Statement for License Renewal of Nuclear Power Plants* (referred to as the GEIS), document the results of the U.S. Nuclear Regulatory Commission (NRC) staff's (staff's) systematic approach to evaluating the environmental impacts of renewing the licenses of individual nuclear power plants. The GEIS was originally published in 1996 and Addendum 1 to the GEIS, which only addresses transportation issues, was published in 1999. Of the 92 total environmental issues that the staff identified in the 1996 GEIS, the staff determined that 69 are generic to all plants (Category 1), while 21 issues must be discussed on a site-specific basis (Category 2). Two other issues, environmental justice and the chronic effects of electromagnetic fields, are uncategorized and must be evaluated on a site-specific basis.

Table B-1 in this appendix lists all 92 environmental issues, including the possible environmental significance (SMALL, MODERATE, LARGE, or uncategorized) as appropriate. This table is provided in Chapter 9 of the 1996 GEIS.

On June 20, 2013, the NRC published a final rule (78 FR 37282) revising its environmental protection regulation, Title 10 of the Code of Federal Regulations (10 CFR) Part 51, "Environmental protection regulations for domestic licensing and related regulatory functions." Specifically, the final rule updates the potential environmental impacts associated with the renewal of an operating license for a nuclear power reactor for an additional 20 years. A revised GEIS (NRC 2013b), which updates the 1996 GEIS, provides the technical basis for the final rule. The revised GEIS specifically supports the revised list of NEPA issues and associated environmental impact findings for license renewal contained in Table B-1 in Appendix B to Subpart A of the revised 10 CFR Part 51. The revised GEIS and final rule reflect lessons learned and knowledge gained during previous license renewal environmental reviews. In addition, public comments received on the draft revised GEIS and rule and during previous license renewal environmental reviews were reexamined to validate existing environmental issues and identify new ones.

This SEIS, which discusses the environmental impacts associated with Davis-Besse license renewal, is reviewed against the criteria from the 1996 GEIS. However, new issues identified, or recategorized, in the 2013 GEIS are also included in this SEIS. The new Category 1 issues identified in the 2013 GEIS which are discussed and evaluated in this SEIS are geology and soils, exposure of terrestrial organisms to radionuclides, exposure of aquatic organisms to radionuclides, human health impact from chemicals, and physical occupational hazards. New Category 2 issues that are addressed in this SEIS are radionuclides released to groundwater, effects on terrestrial resources (non-cooling system impacts), minority and low-income populations (i.e., environmental justice), and cumulative impacts.

**Table B-1. Generic Summary Findings on NEPA Issues for License Renewal of Nuclear Power Plants**

Issue	Type of Issue	Finding
<b>Surface water quality, hydrology, and use</b>		
Impacts of refurbishment on surface water quality	Generic	SMALL. Impacts are expected to be negligible during refurbishment because best management practices are expected to be employed to control soil erosion and spills.
Impacts of refurbishment on surface water use	Generic	SMALL. Water use during refurbishment will not increase appreciably or will be reduced during plant outage.
Altered current patterns at intake and discharge structures	Generic	SMALL. Altered current patterns have not been found to be a problem at operating nuclear power plants and are not expected to be a problem during the license renewal term.
Altered salinity gradients	Generic	SMALL. Salinity gradients have not been found to be a problem at operating nuclear power plants and are not expected to be a problem during the license renewal term.
Altered thermal stratification of lakes	Generic	SMALL. Generally, lake stratification has not been found to be a problem at operating nuclear power plants and is not expected to be a problem during the license renewal term.
Temperature effects on sediment transport capacity	Generic	SMALL. These effects have not been found to be a problem at operating nuclear power plants and are not expected to be a problem during the license renewal term.
Scouring caused by discharged cooling water	Generic	SMALL. Scouring has not been found to be a problem at most operating nuclear power plants and has caused only localized effects at a few plants. It is not expected to be a problem during the license renewal term.
Eutrophication	Generic	SMALL. Eutrophication has not been found to be a problem at operating nuclear power plants and is not expected to be a problem during the license renewal term.
Discharge of chlorine or other biocides	Generic	SMALL. Effects are not a concern among regulatory and resource agencies, and are not expected to be a problem during the license renewal term.
Discharge of sanitary wastes and minor chemical spills	Generic	SMALL. Effects are readily controlled through National Pollutant Discharge Elimination System (NPDES) permit and periodic modifications, if needed, and are not expected to be a problem during the license renewal term.
Discharge of other metals in wastewater	Generic	SMALL. These discharges have not been found to be a problem at operating nuclear power plants with cooling-tower-based heat dissipation systems and have been satisfactorily mitigated at other plants. They are not expected to be a problem during the license renewal term.
Water use conflicts (plants with once-through cooling systems)	Generic	SMALL. These conflicts have not been found to be a problem at operating nuclear power plants with once-through heat dissipation systems.
Water use conflicts (plants with cooling ponds or cooling towers using makeup water from a small river with low flow)	Site-specific	SMALL OR MODERATE. The issue has been a concern at nuclear power plants with cooling ponds and at plants with cooling towers. Impacts on instream and riparian communities near these plants could be of moderate significance in some situations. See § 51.53(c)(3)(ii)(A).

Issue	Type of Issue	Finding
<b>Aquatic ecology</b>		
Refurbishment	Generic	SMALL. During plant shutdown and refurbishment, there will be negligible effects on aquatic biota because of a reduction of entrainment and impingement of organisms or a reduced release of chemicals.
Accumulation of contaminants in sediments or biota	Generic	SMALL. Accumulation of contaminants has been a concern at a few nuclear power plants but has been satisfactorily mitigated by replacing copper alloy condenser tubes with those of another metal. It is not expected to be a problem during the license renewal term.
Entrainment of phytoplankton and zooplankton	Generic	SMALL. Entrainment of phytoplankton and zooplankton has not been found to be a problem at operating nuclear power plants and is not expected to be a problem during the license renewal term.
Cold shock	Generic	SMALL. Cold shock has been satisfactorily mitigated at operating nuclear plants with once-through cooling systems, has not endangered fish populations, or been found to be a problem at operating nuclear power plants with cooling towers or cooling ponds, and is not expected to be a problem during the license renewal term.
Thermal plume barrier to migrating fish	Generic	SMALL. Thermal plumes have not been found to be a problem at operating nuclear power plants and are not expected to be a problem during the license renewal term.
Distribution of aquatic organisms	Generic	SMALL. Thermal discharge may have localized effects but is not expected to affect the larger geographical distribution of aquatic organisms.
Premature emergence of aquatic insects	Generic	SMALL. Premature emergence has been found to be a localized effect at some operating nuclear power plants but has not been a problem and is not expected to be a problem during the license renewal term.
Gas supersaturation (gas bubble disease)	Generic	SMALL. Gas supersaturation was a concern at a small number of operating nuclear power plants with once-through cooling systems but has been satisfactorily mitigated. It has not been found to be a problem at operating nuclear power plants with cooling towers or cooling ponds and is not expected to be a problem during the license renewal term.
Low dissolved oxygen in the discharge	Generic	SMALL. Low dissolved oxygen has been a concern at one nuclear power plant with a once-through cooling system but has been effectively mitigated. It has not been found to be a problem at operating nuclear power plants with cooling towers or cooling ponds and is not expected to be a problem during the license renewal term.
Losses from predation, parasitism, and disease among organisms exposed to sublethal stresses	Generic	SMALL. These types of losses have not been found to be a problem at operating nuclear power plants and are not expected to be a problem during the license renewal term.
Stimulation of nuisance organisms (e.g., shipworms)	Generic	SMALL. Stimulation of nuisance organisms has been satisfactorily mitigated at the single nuclear power plant with a once-through cooling system where previously it was a problem. It has not been found to be a problem at operating nuclear power plants with cooling towers or cooling ponds and is not expected to be a problem during the license renewal term.

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Issue	Type of Issue	Finding
<b>Aquatic ecology (for plants with once-through and cooling-pond heat dissipation systems)</b>		
Entrainment of fish and shellfish in early life stages	Site-specific	SMALL, MODERATE, OR LARGE. The impacts of entrainment are small at many plants but may be moderate or even large at a few plants with once-through and cooling-pond cooling systems. Further, ongoing efforts in the vicinity of these plants to restore fish populations may increase the numbers of fish susceptible to intake effects during the license renewal period, such that entrainment studies conducted in support of the original license may no longer be valid. See § 51.53(c)(3)(ii)(B).
Impingement of fish and shellfish	Site-specific	SMALL, MODERATE, OR LARGE. The impacts of impingement are small at many plants but may be moderate or even large at a few plants with once-through and cooling-pond cooling systems. See § 51.53(c)(3)(ii)(B).
Heat shock	Site-specific	SMALL, MODERATE, OR LARGE. Because of continuing concerns about heat shock and the possible need to modify thermal discharges in response to changing environmental conditions, the impacts may be of moderate or large significance at some plants. See § 51.53(c)(3)(ii)(B).
<b>Aquatic ecology (for plants with cooling-tower-based heat dissipation systems)</b>		
Entrainment of fish and shellfish in early life stages	Generic	SMALL. Entrainment of fish has not been found to be a problem at operating nuclear power plants with this type of cooling system and is not expected to be a problem during the license renewal term.
Impingement of fish and shellfish	Generic	SMALL. The impingement has not been found to be a problem at operating nuclear power plants with this type of cooling system and is not expected to be a problem during the license renewal term.
Heat shock	Generic	SMALL. Heat shock has not been found to be a problem at operating nuclear power plants with this type of cooling system and is not expected to be a problem during the license renewal term.
<b>Groundwater use and quality</b>		
Impacts of refurbishment on groundwater use and quality	Generic	SMALL. Extensive dewatering during the original construction on some sites will not be repeated during refurbishment on any sites. Any plant wastes produced during refurbishment will be handled in the same manner as in current operating practices and are not expected to be a problem during the license renewal term.
Groundwater use conflicts (potable and service water; plants that use <100 gallons per minute (gpm))	Generic	SMALL. Plants using less than 100 gpm are not expected to cause any groundwater use conflicts.
Groundwater use conflicts (potable and service water, and dewatering plants that use >100 gpm)	Site-specific	SMALL, MODERATE, OR LARGE. Plants that use more than 100 gpm may cause groundwater use conflicts with nearby groundwater users. See § 51.53(c)(3)(ii)(C).
Groundwater use conflicts (plants using cooling towers withdrawing makeup water from a small river)	Site-specific	SMALL, MODERATE, OR LARGE. Water use conflicts may result from surface water withdrawals from small water bodies during low flow conditions which may affect aquifer recharge, especially if other groundwater or upstream surface water users come online before the time of license renewal. See § 51.53(c)(3)(ii)(A).

Issue	Type of Issue	Finding
Groundwater use conflicts (Ranney wells)	Site-specific	SMALL, MODERATE, OR LARGE. Ranney wells can result in potential groundwater depression beyond the site boundary. Impacts of large groundwater withdrawal for cooling tower makeup at nuclear power plants using Ranney wells must be evaluated at the time of application for license renewal. See § 51.53(c)(3)(ii)(C).
Groundwater quality degradation (Ranney wells)	Generic	SMALL. Groundwater quality at river sites may be degraded by induced infiltration of poor-quality river water into an aquifer that supplies large quantities of reactor cooling water. However, the lower quality infiltrating water would not preclude the current uses of groundwater and is not expected to be a problem during the license renewal term.
Groundwater quality degradation (saltwater intrusion)	Generic	SMALL. Nuclear power plants do not contribute significantly to saltwater intrusion.
Groundwater quality degradation (cooling ponds in salt marshes)	Generic	SMALL. Sites with closed-cycle cooling ponds may degrade groundwater quality. Because water in salt marshes is brackish, this is not a concern for plants located in salt marshes.
Groundwater quality degradation (cooling ponds at inland sites)	Site-specific	SMALL, MODERATE, OR LARGE. Sites with closed-cycle cooling ponds may degrade groundwater quality. For plants located inland, the quality of the groundwater in the vicinity of the ponds must be shown to be adequate to allow continuation of current uses. See § 51.53(c)(3)(ii)(D).
<b>Terrestrial ecology</b>		
Refurbishment impacts	Site-specific	SMALL, MODERATE, OR LARGE. Refurbishment impacts are insignificant if no loss of important plant and animal habitat occurs. However, it cannot be known whether important plant and animal communities may be affected until the specific proposal is presented with the license renewal application. See § 51.53(c)(3)(ii)(E).
Cooling tower impacts on crops and ornamental vegetation	Generic	SMALL. Impacts from salt drift, icing, fogging, or increased humidity associated with cooling tower operation have not been found to be a problem at operating nuclear power plants and are not expected to be a problem during the license renewal term.
Cooling tower impacts on native plants	Generic	SMALL. Impacts from salt drift, icing, fogging, or increased humidity associated with cooling tower operation have not been found to be a problem at operating nuclear power plants and are not expected to be a problem during the license renewal term.
Bird collisions with cooling towers	Generic	SMALL. These collisions have not been found to be a problem at operating nuclear power plants and are not expected to be a problem during the license renewal term.
Cooling pond impacts on terrestrial resources	Generic	SMALL. Impacts of cooling ponds on terrestrial ecological resources are considered to be of small significance at all sites.
Power line right of way (ROW) management (cutting and herbicide application)	Generic	SMALL. The impacts of ROW maintenance on wildlife are expected to be of small significance at all sites.
Bird collisions with power lines	Generic	SMALL. Impacts are expected to be of small significance at all sites.

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Issue	Type of Issue	Finding
Impacts of electromagnetic fields on flora and fauna	Generic	SMALL. No significant impacts of electromagnetic fields on terrestrial flora and fauna have been identified. Such effects are not expected to be a problem during the license renewal term.
Floodplains and wetland on power line ROW	Generic	SMALL. Periodic vegetation control is necessary in forested wetlands underneath power lines and can be achieved with minimal damage to the wetland. No significant impact is expected at any nuclear power plant during the license renewal term.
<b>Threatened and endangered species</b>		
Threatened or endangered species	Site-specific	SMALL, MODERATE, OR LARGE. Generally, plant refurbishment and continued operation are not expected to adversely affect threatened or endangered species. However, consultation with appropriate agencies would be needed at the time of license renewal to determine whether or not threatened or endangered species are present and whether or not they would be adversely affected. See § 51.53(c)(3)(ii)(E).
<b>Air quality</b>		
Air quality during refurbishment (non-attainment and maintenance areas)	Site-specific	SMALL, MODERATE, OR LARGE. Air quality impacts from plant refurbishment associated with license renewal are expected to be small. However, vehicle exhaust emissions could be cause for concern at locations in or near nonattainment or maintenance areas. The significance of the potential impact cannot be determined without considering the compliance status of each site and the number of workers expected to be employed during the outage. See § 51.53(c)(3)(ii)(F).
Air quality effects of transmission lines	Generic	SMALL. Production of ozone and oxides of nitrogen is insignificant and does not contribute measurably to ambient levels of these gases.
<b>Land use</b>		
Onsite land use	Generic	SMALL. Projected onsite land use changes required during refurbishment and the renewal period would be a small fraction of any nuclear power plant site and would involve land that is controlled by the applicant.
Power line ROW	Generic	SMALL. Ongoing use of power line ROWs would continue with no change in restrictions. The effects of these restrictions are of small significance.
<b>Human health</b>		
Radiation exposures to the public during refurbishment	Generic	SMALL. During refurbishment, the gaseous effluents would result in doses that are similar to those from current operation. Applicable regulatory dose limits to the public are not expected to be exceeded.
Occupational radiation exposures during refurbishment	Generic	SMALL. Occupational doses from refurbishment are expected to be within the range of annual average collective doses experienced for pressurized-water reactors and boiling-water reactors. Occupational mortality risk from all causes including radiation is in the mid-range for industrial settings.
Microbiological organisms (occupational health)	Generic	SMALL. Occupational health impacts are expected to be controlled by continued application of accepted industrial hygiene practices to minimize exposure to workers.

Issue	Type of Issue	Finding
Microbiological organisms (public health) (plants using lakes or canals, or cooling towers or cooling ponds that discharge to a small river)	Site-specific	SMALL, MODERATE, OR LARGE. These organisms are not expected to be a problem at most operating plants except possibly at plants using cooling ponds, lakes, or canals that discharge to small rivers. Without site-specific data, it is not possible to predict the effects generically. See § 51.53(c)(3)(ii)(G).
Noise	Generic	SMALL. Noise has not been found to be a problem at operating plants and is not expected to be a problem at any plant during the license renewal term.
Electromagnetic fields – acute effects (electric shock)	Site-specific	SMALL, MODERATE, OR LARGE. Electrical shock resulting from direct access to energized conductors or from induced charges in metallic structures have not been found to be a problem at most operating plants and generally are not expected to be a problem during the license renewal term. However, site-specific review is required to determine the significance of the electric shock potential at the site. See § 51.53(c)(3)(ii)(H).
Electromagnetic fields – chronic effects	Uncategorized	UNCERTAIN. Biological and physical studies of 60-hertz (Hz) electromagnetic fields have not found consistent evidence linking harmful effects with field exposures. However, research is continuing in this area and a consensus scientific view has not been reached.
Radiation exposures to public (license renewal term)	Generic	SMALL. Radiation doses to the public will continue at current levels associated with normal operations.
Occupational radiation exposures (license renewal term)	Generic	SMALL. Projected maximum occupational doses during the license renewal term are within the range of doses experienced during normal operations and normal maintenance outages, and would be well below regulatory limits.
<b>Socioeconomic impacts</b>		
Housing impacts	Site-specific	SMALL, MODERATE, OR LARGE. Housing impacts are expected to be of small significance at plants located in a medium or high population area and not in an area where growth control measures that limit housing development are in effect. Moderate or large housing impacts of the workforce associated with refurbishment may be associated with plants located in sparsely populated areas or in areas with growth control measures that limit housing development. See § 51.53(c)(3)(ii)(I).
Public services: public safety, social services, and tourism and recreation	Generic	SMALL. Impacts to public safety, social services, and tourism and recreation are expected to be of small significance at all sites.
Public services: public utilities	Site-specific	SMALL OR MODERATE. An increased problem with water shortages at some sites may lead to impacts of moderate significance on public water supply availability. See § 51.53(c)(3)(ii)(I).
Public services: education (refurbishment)	Site-specific	SMALL, MODERATE, OR LARGE. Most sites would experience impacts of small significance but larger impacts are possible depending on site- and project-specific factors. See § 51.53(c)(3)(ii)(I).
Public services: education (license renewal term)	Generic	SMALL. Only impacts of small significance are expected.
Offsite land use (refurbishment)	Site-specific	SMALL OR MODERATE. Impacts may be of moderate significance at plants in low population areas. See § 51.53(c)(3)(ii)(I).

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Issue	Type of Issue	Finding
Offsite land use (license renewal term)	Site-specific	SMALL, MODERATE, OR LARGE. Significant changes in land use may be associated with population and tax revenue changes resulting from license renewal. See § 51.53(c)(3)(ii)(I).
Public services: transportation	Site-specific	SMALL, MODERATE, OR LARGE. Transportation impacts (level of service) of highway traffic generated during plant refurbishment and during the term of the renewed license are generally expected to be of small significance. However, the increase in traffic associated with the additional workers and the local road and traffic control conditions may lead to impacts of moderate or large significance at some sites. See § 51.53(c)(3)(ii)(J).
Historic and archaeological resources	Site-specific	SMALL, MODERATE, OR LARGE. Generally, plant refurbishment and continued operation are expected to have no more than small adverse impacts on historic and archaeological resources. However, the National Historic Preservation Act requires the Federal agency to consult with the State Historic Preservation Officer to determine whether or not there are properties present that require protection. See § 51.53(c)(3)(ii)(K).
Aesthetic impacts (refurbishment)	Generic	SMALL. No significant impacts are expected during refurbishment.
Aesthetic impacts (license renewal term)	Generic	SMALL. No significant impacts are expected during the license renewal term.
Aesthetic impacts of transmission lines (license renewal term)	Generic	SMALL. No significant impacts are expected during the license renewal term.
<b>Postulated accidents</b>		
Design basis accidents	Generic	SMALL. The staff has concluded that the environmental impacts of design-basis accidents are of small significance for all plants.
Severe accidents	Site-specific	SMALL. The probability weighted consequences of atmospheric releases, fallout onto open bodies of water, releases to groundwater, and societal and economic impacts from severe accidents are small for all plants. However, alternatives to mitigate severe accidents must be considered for all plants that have not considered such alternatives. See § 51.53(c)(3)(ii)(L).
<b>Uranium fuel cycle and waste management</b>		
Offsite radiological impacts (individual effects from other than the disposal of spent fuel and high level waste)	Generic	SMALL. Offsite impacts of the uranium fuel cycle have been considered by the Commission in Table S-3 of this part. Based on information in the GEIS, impacts on individuals from radioactive gaseous and liquid releases including radon-222 and technetium-99 are small.
Offsite radiological impacts (collective effects)	Generic	The 100-year environmental dose commitment to the U.S. population from the fuel cycle, high level waste, and spent fuel disposal excepted, is calculated to be about 14,800 person rem, or 12 cancer fatalities, for each additional 20-year power reactor operating term. Much of this, especially the contribution of radon releases from mines and tailing piles, consists of tiny doses summed over large populations. This same dose calculation can theoretically be extended to include many tiny doses over additional thousands of years as well as doses outside the United States. The result of such a calculation would be thousands of cancer fatalities from the fuel cycle, but this result assumes that even tiny doses have some statistical adverse health effect which will not ever be mitigated (for example no cancer cure in the next thousand years), and that these doses projected over thousands of years are meaningful; however, these assumptions are questionable. In particular, science cannot rule out the possibility that there



Issue	Type of Issue	Finding
		<p>will be no cancer fatalities from these tiny doses. For perspective, the doses are very small fractions of regulatory limits, and even smaller fractions of natural background exposure to the same populations.</p> <p>Nevertheless, despite all the uncertainty, some judgment as to the regulatory NEPA implications of these matters should be made and it makes no sense to repeat the same judgment in every case. Even taking the uncertainties into account, the Commission concludes that these impacts are acceptable in that these impacts would not be sufficiently large to require the NEPA conclusion, for any plant, that the option of extended operation under 10 CFR Part 54 should be eliminated. Accordingly, while the Commission has not assigned a single level of significance for the collective effects of the fuel cycle, this issue is considered Category 1 (Generic).</p>
Offsite radiological impacts (spent fuel and high level waste disposal)	Generic	<p>For the high level waste and spent fuel disposal component of the fuel cycle, there are no current regulatory limits for offsite releases of radionuclides for the current candidate repository site. However, if it is assumed that limits are developed along the lines of the 1995 National Academy of Sciences (NAS) report, "Technical Bases for Yucca Mountain Standards," and that in accordance with the Commission's Waste Confidence Decision, 10 CFR 51.23, a repository can and likely will be developed at some site which will comply with such limits, peak doses to virtually all individuals will be 100 millirem per year or less. However, while the Commission has reasonable confidence that these assumptions will prove correct, there is considerable uncertainty since the limits are yet to be developed, no repository application has been completed or reviewed, and uncertainty is inherent in the models used to evaluate possible pathways to the human environment. The NAS report indicated that 100 millirem per year should be considered as a starting point for limits for individual doses, but notes that some measure of consensus exists among national and international bodies that the limits should be a fraction of the 100 millirem per year. The lifetime individual risk from 100 millirem annual dose limit is about <math>3 \times 10^{-3}</math>.</p> <p>Estimating cumulative doses to populations over thousands of years is more problematic. The likelihood and consequences of events that could seriously compromise the integrity of a deep geologic repository were evaluated by the Department of Energy in the "Final Environmental Impact Statement: Management of Commercially Generated Radioactive Waste," October 1980. The evaluation estimated the 70-year whole-body dose commitment to the maximum individual and to the regional population resulting from several modes of breaching a reference repository in the year of closure, after 1,000 years, after 100,000 years, and after 100,000,000 years. Subsequently, the NRC and other federal agencies have expended considerable effort to develop models for the design and for the licensing of a high level waste repository, especially for the candidate repository at Yucca Mountain. More meaningful estimates of doses to population may be possible in the future as more is understood about the performance of the proposed Yucca Mountain repository. Such estimates would involve very great uncertainty, especially with respect to cumulative population doses over thousands of years. The standard proposed by the NAS is a limit on maximum individual dose. The relationship of potential new regulatory requirements, based on the NAS report, and cumulative population impacts has not been determined, although the report articulates the view that protection of individuals will adequately protect the population for a repository at Yucca Mountain. However, the EPA's generic repository standards in 40 CFR Part 191 generally provide an indication of the order of magnitude of cumulative risk to population that could result from the licensing of a Yucca Mountain repository, assuming the ultimate standards will be within the range of standards now under consideration. The standards in 40 CFR Part 191 protect the population by imposing the amount of radioactive material released over 10,000 years. The cumulative release limits are based on the EPA's population impact goal of 1,000 premature</p>

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Issue	Type of Issue	Finding
		<p>cancer deaths worldwide for a 100,000 metric ton (MT) repository.</p> <p>Nevertheless, despite all the uncertainty, some judgment as to the regulatory NEPA implications of these matters should be made and it makes no sense to repeat the same judgment in every case. Even taking the uncertainties into account, the Commission concludes that these impacts are acceptable in that these impacts would not be sufficiently large to require the NEPA conclusion, for any plant, that the option of extended operation under 10 CFR Part 54 should be eliminated. Accordingly, while the Commission has not assigned a single level of significance for the impacts of spent fuel and high level waste disposal, this issue is considered in Category 1 (Generic).</p>
Nonradiological impacts of the uranium fuel cycle	Generic	SMALL. The nonradiological impacts of the uranium fuel cycle resulting from the renewal of an operating license for any plant are found to be small.
Low-level waste storage and disposal	Generic	<p>SMALL. The comprehensive regulatory controls that are in place and the low public doses being achieved at reactors ensure that the radiological impacts to the environment will remain small during the term of a renewed license. The maximum additional onsite land that may be required for low-level waste storage during the term of a renewed license and associated impacts will be small.</p> <p>Nonradiological impacts on air and water will be negligible. The radiological and nonradiological environmental impacts of long-term disposal of low-level waste from any individual plant at licensed sites are small. In addition, the Commission concludes that there is reasonable assurance that sufficient low-level waste disposal capacity will be made available when needed for facilities to be decommissioned consistent with NRC decommissioning requirements.</p>
Mixed waste storage and disposal	Generic	SMALL. The comprehensive regulatory controls and the facilities and procedures that are in place ensure proper handling and storage, as well as negligible doses and exposure to toxic materials for the public and the environment at all plants. License renewal will not increase the small, continuing risk to human health and the environment posed by mixed waste at all plants. The radiological and nonradiological environmental impacts of long-term disposal of mixed waste from any individual plant at licensed sites are small. In addition, the Commission concludes that there is reasonable assurance that sufficient mixed waste disposal capacity will be made available when needed for facilities to be decommissioned consistent with NRC decommissioning requirements.
Onsite spent fuel	Generic	SMALL. The expected increase in the volume of spent fuel from an additional 20 years of operation can be safely accommodated on site with small environmental effects through dry or pool storage at all plants if a permanent repository or monitored retrievable storage is not available.
Nonradiological waste	Generic	SMALL. No changes to generating systems are anticipated for license renewal. Facilities and procedures are in place to ensure continued proper handling and disposal at all plants.
Transportation	Generic	SMALL. The impacts of transporting spent fuel enriched up to 5 percent uranium-235 with average burnup for the peak rod to current levels approved by NRC up to 62,000 megawatt days per metric-ton uranium Wd/MTU) and the cumulative impacts of transporting high-level waste to a single repository, such as Yucca Mountain, Nevada are found to be consistent with the impact values contained in 10 CFR 51.52(c), Summary Table S-4 – Environmental Impact of Transportation of Fuel and Waste to and from One Light-Water-Cooled Nuclear Power Reactor. If fuel enrichment or burnup conditions are not met, the applicant must submit an assessment of the implications for the environmental impact values reported in § 51.52.

Issue	Type of Issue	Finding
<b>Decommissioning</b>		
Radiation doses	Generic	SMALL. Doses to the public will be well below applicable regulatory standards regardless of which decommissioning method is used. Occupational doses would increase no more than 1 man-rem caused by buildup of long-lived radionuclides during the license renewal term.
Waste management	Generic	SMALL. Decommissioning at the end of a 20-year license renewal period would generate no more solid wastes than at the end of the current license term. No increase in the quantities of Class C or greater than Class C wastes would be expected.
Air quality	Generic	SMALL. Air quality impacts of decommissioning are expected to be negligible either at the end of the current operating term or at the end of the license renewal term.
Water quality	Generic	SMALL. The potential for significant water quality impacts from erosion or spills is no greater whether decommissioning occurs after a 20-year license renewal period or after the original 40-year operation period, and measures are readily available to avoid such impacts.
Ecological resources	Generic	SMALL. Decommissioning after either the initial operating period or after a 20-year license renewal period is not expected to have any direct ecological impacts.
Socioeconomic impacts	Generic	SMALL. Decommissioning would have some short-term socioeconomic impacts. The impacts would not be increased by delaying decommissioning until the end of a 20-year relicense period, but they might be decreased by population and economic growth.
<b>Environmental justice</b>		
Environmental justice	Uncategorized	NONE. The need for and the content of an analysis of environmental justice will be addressed in plant-specific reviews.

Source: Table B-1 in Appendix B, Subpart A, to 10 CFR Part 51 (61 FR 28467, June 5, 1996.)

